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AN UNUSUAL OUTBREAK OF TYPHOID FEVER

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Soon after the opening of the University of Wisconsin on Oct. 1, 1908, there occurred a localized outbreak of typhoid fever which presented such unusual features that we are making a record of it, hoping that it may prove useful to those interested in this disease, and especially to those having supervision of students at centers of education.

Very near the campus is an unusually well-kept and popular boarding-house, patronized not only by students, but also by a number of the younger members of the faculty. It has been running for some six years, and no trouble has occurred there before. As in many other such places, students are employed as waiters and helpers in the pantry.

The house opened with the beginning of the scholastic year, and soon had from ninety-five to one hundred boarders, many applicants being turned away. The working force consisted of the landlady and her two sisters, a cook, two young women who had just reached America from Norway, and thirteen student helpers, most of whom were waiters. Two or three of them assisted in scraping the used plates and in wiping and stacking the clean plates and dishes. While hot water was used, there was no attempt made at thorough sterilization of utensils.

About the middle of October about fifty or sixty of the boarders were attacked by diarrhea and nausea, some being sick for several days. The majority, however, recovered promptly without having consulted physicians. It has not been possible to determine the cause of this outbreak, but it was attributed by some to veal and by others to bananas. A number who ate of both escaped, however.

During the last week of October a number of the boarders became ill, the general symptoms being headache, lassitude, loss of appetite, and pains in the limbs. The general opinion among the sufferers seems to have been that they were suffering from grip. The first case reported to the Hygienic Laboratory was on October 29, the patient having been at that time sick for one week. Others followed in rapid succession, and by November 15 more than forty cases of illness were known to exist.

The symptoms in most cases were not well defined, but typhoid fever was suspected in several by the physician in attendance. The first Widal examinations made in the laboratory were negative. A number of the sick students went at once to their homes without having seen physicians. Many of these were heard from later, through the sending of their blood to the laboratory for examination, a positive Widal being found in the great majority of them. Some returned to their work, but continued in poor condition, and finally reported at the laboratory for examination. In a number of cases the symptoms were so mild that the men continued at their work without medical advice; some did half work, resting part of the time.

As far as possible all such cases were investigated, those of students who went home and those of students who did half work, and in all was a positive Widal reaction found. A typical case may be given.

M., the son of a physician, was one of those affected with nausea and diarrhea. He went to his home, where his father made a diagnosis of ptomain poisoning. On his return to the university he continued in poor condition, and finally reported to us on October 30. We found him cyanotic, anemic, and with a temperature of 97.5 F. His blood gave a high positive Widal.

Among those stricken were the two Norwegian girls who worked in the kitchen and pantry. In less than one month forty-one cases of typhoid fever occurred among those boarding or working at this house, three of which terminated fatally. Only one case occurred later than November 15—that of a student waiter.

During the same time there was only one case of typhoid fever among the students not boarding at this house, and only three or four other cases in the city of Madison. Madison is free from typhoid fever at all times, the water being of unusual purity.

Every possible source of infection was studied. The water used at the boarding-house was from the city supply, which is of known excellence. Bacteriologic examinations were made, however, and no pollution detected. The ice was found to be of exceptional purity on several examinations. Furthermore, its source was traced to an inland city, the inhabitants of which were free from any outbreak, though this same supply had been used continuously all summer. It had been harvested at least six months previously, and it is known that the typhoid germ seldom survives freezing for this length of time. The milk supply was investigated, but no cause for suspicion found.

The possibility of infection through raw vegetables or oysters was excluded. Only one old privy vault existed in the neighborhood, and no infection of this could be traced. The windows of the boarding-house were screened, and flies had not been troublesome.

Attention naturally turned to the detection of a typhoid-carrier among those employed in preparing and

serving the meals. The following history was elicited: E. L., a student employed to scrape, wipe, and stack plates and dishes, had resumed his duties on the opening of the house, having served in this capacity during the previous year. Immediately on his return to work he complained of having "no taste for food," which he attributed to the change of life from the country to the city. About October 20 he gave notice to the landlady that he would probably have to give up work on account of illness, and within a day or two went to Janesville, Wis., where he consulted an optician for his intense headaches, believing that his eyes were at fault. His parents urged him to remain at home until he felt better, and observed at this time that he had fever. He returned to work, however, but on October 30 gave up his place and went home, where he died two weeks later. The death of this student made it impossible to obtain a more complete history, but there can be no question that he was in the early stages of typhoid fever when he returned to Madison from vacation. We have not been able to find out at what time his bowels became loose. His duties were such that he handled utensils after they had been washed, affording an opportunity for their infection.

The exclusion of every other possible source has forced the conviction that the outbreak was caused by this method of infection. Furthermore, the outbreak ceased shortly after this student went home, only one case having occurred after such a lapse of time as to throw any question on this source of infection. In this last case the student appeared to be ill at least two weeks before he finally succumbed on November 25. He was repeatedly questioned by one of us (Dr. R.), who believed he was ill. He was an advanced student in bacteriology, had given much assistance in studying the outbreak, and was a man of more than average ability; hence his statements were given more weight than seems to have been justified. His blood gave a high and rapid positive Widal as soon as he complained of illness, indicating an infection of some standing.

The boarding-house was closed for several days on November 6 and disinfected, after which it was allowed to open again, and no case of illness has occurred since.

One fact seems to militate against the above explanation, namely, the rapidity with which the patients came down, the great majority of them giving up between November 3 and 10, the 3d, 6th, and 7th yielding a particularly large number. This may have indicated that a large number of persons were infected at the same time. Probably suggestion had something to do with this, as on these days the house was inspected, closed, and fumigated, and there was considerable excitement over the large number of students taken ill. This, however, only explains the giving up—not the infection.

Another problem which presented itself was the possibility that the choleraic outbreak in November may have been due to a massive dose of typhoid bacilli. If such was the case the origin of the germs remains a mystery. Paratyphoid appears to follow meat poisoning, but all of our cases gave typhoid agglutination—none paratyphoid—so that paratyphoid may be excluded.

In order to gain as much light on this point as possible we have traced as many of these students as we could find and examined their blood by the Widal test. Two gave a prompt agglutination, though sick only for two days, and having no previous history of typhoid fever. All others were negative.

While every clinical type of the disease was observed in this outbreak, certain features seemed to have been predominant. The headache was in the occiput and pain extended down the back of the neck. Constipation was more frequent than diarrhea.

Before allowing any one who had been ill to return to work in any capacity in this house the urine and feces were examined. No typhoid-carrier was found among them and no case of sickness has developed since November.

THE COMBINED COURSE FOR THE DEGREES OF A.B., OR B.S., AND M.D.

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Within the last decade there has developed a plan in several American universities under which a student takes, during the junior and senior years, those sciences which constitute the first two years of the medical curriculum. Credit for the successful completion of the work in these branches is permitted to count both toward a baccalaureate degree in the collegiate department and toward the degree of M.D. in the medical school. The student is thus able to secure the baccalaureate degree and the degree of M.D. in from six to seven years after his completion of the high school course and his matriculation in the university.

The plan has extended rapidly, it being now in operation in over thirty American universities. It is believed by many educators to be the best solution yet offered of the problem of how to provide a good many students with a fairly adequate premedical training and to induct them into the study and later the practice of medicine at a reasonably early age.

On the other hand, the custom is pronounced by one distinguished educator to be "pernicious," by another to be "a very dangerous process," that, indeed, "there is no more alarming process now going on in the United States in regard to education than this." Associations of college presidents have protested against it, and a resolution to prohibit the practice adopted a year ago, is now under reconsideration by the Board of Regents of the University of the State of New York.

The importance of the question warrants the fullest discussion by all who are interested in the subject. It is the purpose of this paper to inquire whether the combined course is a dangerous tendency which degrades the baccalaureate and medical degrees, or whether it is the logical, if not the inevitable, outcome of educational methods now all but universally adopted; whether it has not assisted markedly in elevating the standards of medical education in this country, and in improving the character of the instruction in the fundamental medical sciences.

HISTORY

The plan is the outgrowth of a custom which arose about twenty years ago of granting advanced standing on the medical course, both in time and subject, to the holders of a baccalaureate degree who had completed, in their collegiate course, some of the studies of the medical curriculum. At that time the requirement for admission to most of the American Medical Colleges comprised less than is covered in the first two years of a high school course, and no medical colleges exacted more than a diploma of a four-year high school. It was felt by the medical faculties who instituted the custom that, both because of his more adequate mental

training and greater power of accomplishment and because the college graduate had already completed some of the work of the medical curriculum, he might readily complete the three years medical course in two sessions, and this he was permitted to do; while, later, when the medical course was extended to four years, he was permitted to complete it in three years. It was believed that this concession would encourage young men who contemplated the study of medicine to take a college course before entering the medical school, and this effect it undoubtedly had with many students.

This custom continued in operation very generally among the medical schools until about four years ago, when the rulings of the boards of medical examiners in several states prohibited the practice. How illogical, unjust and unwise were these rulings of the examining boards will be discussed later on in this paper.

THE UNIVERSITY MEDICAL SCHOOL

Some medical schools were at that time departments of universities, and within a few years, by union or affiliation, a considerable number of independent medical schools became such. The application of the custom of granting advanced standing to the graduates of the collegiate departments of their own universities resulted in a combination and shortening of the collegiate and medical courses to six or seven years. Coincident with these developments, a radical change was taking place in the methods and personnel of those engaged in the teaching of the fundamental medical branches—chemistry, anatomy, histology, embryology, physiology, physiologic chemistry and pharmacology, bacteriology and pathology. The rapid progress and growing importance of these branches made it impossible for them to be taught adequately by physicians engaged in medical practice, and pursuing these subjects as an incidental avocation. Within a few years, in all of the better medical schools, they were transferred to men, each of whom devoted his time and energies exclusively to research and teaching in his chosen branch. And thus, with competent instructors and the introduction of laboratory methods with ample equipment, these medical sciences came to be, in the truest sense, branches of general science, in every way as well adapted for purposes of general culture and the development of the mental faculties as are other sciences in the college curriculum. Under the elective system, in vogue in most of the larger universities, the logical outcome was obvious. It can best be stated by the relation of a specific case.

An Illustrative Case.—A few years ago a medical school became affiliated with a neighboring university. The medical faculty had already decided to advance its admission requirements in the near future and to demand the completion of the first two years of the collegiate course in the university, or some other college of equal rank. The required course for the medical degree extended over four sessions of nine months each. In the university the curriculum for the freshmen and sophomore years was in part prescribed, in part elective. It included the courses in physics, chemistry and biology, and gave abundant opportunity to secure the courses in English, German or French, mathematics, history, etc., which the medical faculty deemed requisite for admission to the medical school. The last two years of the curriculum for the baccalaureate degree were elective, except that three months of work was specified in philosophy and psychology. (This provision has subsequently been changed so that the student may take these branches in the first two years if he prefers so to do.) Moreover, the university possessed a department of anatomy, both gross and microscopic, of neurology and of physiology; embryology and bacteriology were taught in the department of zoology. Provision was about to be made for physiologic chemistry, and pharmacology, as, in a large sense, a branch of physiology could readily be provided for, as could fundamental pathology. Under the regulations of the university, in operation since its beginning, a student seeking the degree of bachelor of science could elect for the work of his junior and senior years courses in these departments, and when he had completed them he had completed all the work of the first two years of the medical curriculum prescribed in this as in virtually all other medical schools. The facilities for instruction in these fundamental medical sciences in the university were in every way superior to those in the medical school. The logical result of this situation was a transfer of the work of the first two years of the medical curriculum to the university, and at once it became possible for a student to secure the degree of B.S. in the university and of M.D. from the medical school in from six to six and one-half years. This arrangement involved no concession whatever on the part of the university, no departure from its long-established regulations concerning the baccalaureate degree. So far from any concession being made by the medical school, the change was a distinct gain in every way, the fundamental branches being taught under far better conditions and much more efficiently than ever before.

There was no logical escape from this deduction of the combined course from the conditions exisiting. No university with a medical department, offering instruction in the fundamental medical branches of the proper sort, can deny its students credit in the medical subjects on the course for a bachelor's degree, unless it either repudiates the elective system or declares these subjects not to be branches of general learning. Can the present day university adopt either of these alternatives?

THE ELECTIVE SYSTEM

Of the elective system it is hardly too much to say that its validity has passed beyond the realm of discussion. No other educational method in the last quarter century has made such rapid progress toward universal acceptance. It is in operation to-day in one form or another, more or less completely, in every university of any standing. It will be discussed more fully in a later portion of this paper.

And are not these medical subjects properly included in the university curriculum? Let us inquire.

MEDICAL SUBJECTS BRANCHES OF GENERAL LEARNING

Of chemistry, histology, embryology and bacteriology there can be no question, for they have been taught in many colleges and universities for years—long, indeed, before the question of their relation to the medical curriculum came under discussion. Human anatomy, with dissection, while taught until recent years only in the medical school, is surely a legitimate branch of vertebrate and comparative anatomy—the crowning topic indeed—quite as much as it is a medical subject. No department of anatomy in a university can be regarded as complete unless it offers its students opportunity for the study of the human body. The materials for its pursuit are not so readily procurable as are the bodies of the lower animals, but the experience of many universities, and even of smaller

colleges having no medical departments, has shown that they are not inaccessible under modern statutory provisions. That the application of human anatomy is chiefly to medicine, and that anatomic science originated and was for centuries studied and taught only in the medical schools, does not alter the fact that logically it is a great and important branch of zoology, and, as such, is entitled to a place in the university curriculum.

No science is of more universal interest and importance to all classes of students than physiology, though it is strange that this fact has been so slowly realized and that few subjects have been more inadequately taught. It has long been the custom in most colleges and high schools to offer instruction in physiology consisting of lectures, recitations from a text-book and occasional demonstrative experiments. Physiology can no more be properly taught than can any other science without laboratory experimentation by the individual student. Of late years universities are coming to realize this, and a chair of physiology, occupied by a competent investigator and teacher of this science, devoting his time and energies exclusively thereto, with adequate laboratory equipment and instructional force, is recognized as an essential department of a university. Such a department of physiology is the best possible place for the medical student to study this subject, and it matters little whether the department be called medical or otherwise.

PHARMACOLOGY AND FUNDAMENTAL PATHOLOGY AS GENERAL SCIENCE

There are but two other branches of any moment which are to-day usually included in the first two years of the medical curriculum, namely, pharmacology and pathology, and concerning these there may be more room for discussion—that is, as to their right to be regarded as branches of general learning and so entitled to inclusion in the university curriculum? Two points are to be noted in this connection: first, fundamentally considered both of these subjects are but phases or adjuncts of physiology; second, if this be not comprehended and conceded in any particular institution, they may be deferred to the junior year of the medical course, as is the custom in a number of the best medical schools. This latter alternative will become more feasible as the fifth year of clinical instruction, now contemplated by some of the better schools, and to consist, for most students, of service as an interne in a hospital, comes to be generally adopted.

To return to the first point, it is not difficult to demonstrate that, in the truest sense, pathology and pharmacology are fundamental sciences—essential phases of physiology. Pharmacology, which consists in the study of the effect of drugs on the animal organism, is an indispensable method of physiologic investigation, and its technic is wholly that of the physiologic laboratory. Indeed, while the medical student ordinarily would pursue the study of drug effects somewhat farther than would the student of pure physiology, no one can proceed very far in the latter branch without taking up the methods of pharmacology and he is constantly resorting to them throughout his further study of that science. To proceed further in the pursuit of what we call pharmacology is but to continue work in physiology.

The pathology which is had in mind in this connection is by no means the pathologic anatomy which until recently constituted practically all that was known and taught as pathology. That was, indeed, a purely technical medical subject, related almost exclusively to the curriculum of the medical college proper. It is obvious that a knowledge of the intimate nature of disease in the animal organism could never be derived from an observation, however exhaustive and microscopic, of the end-results of pathologic processes, in a word, from the study of pathologic anatomy. Such a knowledge can only come from a study of the physical and chemical forces which produce these changes. Furthermore, such a study must be largely conducted by the method of experiment, and this, too, on organisms of such simple structure and in such environment as make it possible to know and to control all of the possible factors concerned in producing the changes observed. Such pathology is simply the physiology of the abnormal, or of the normal in an abnormal environment and as such this science is indissolubly bound up with physiology proper. Indeed, pathology has contributed largely to our knowledge of physiology, and such experimental work as that of Loeb and others in the study of simple organisms in an abnormal environment which can be varied accurately and at will, is quite as truly pathology as it is physiology. It is in this kind of pathology that the hope for future progress in that science chiefly lies, and it is with this sort of pathology that the student of medicine must begin his study of the science of disease. It is rapidly coming to make up the major part of the first course in this science as it is taught in the university medical schools. Its methods, its technic, its modes of observation, experiment and deduction differ in no material respect from those of pure physiology and physiologic chemistry, of which it is an adjunct science.

Is such a science not deserving of a place in the university curriculum? If the student of pure science, who has elected physiology as his field, is led to extend his inquiries into the field of the abnormal, shall not the university provide him with a place and facilities for such study? And is the work he does along such lines not quite as potent for the training of the faculties as that he may do in any other science in the curriculum? Is it not quite as deserving of credit in the course for a baccalaureate or for a higher degree as is accomplishment in any other university department? The right of pathology to a place in the university curriculum has been adequately set forth by Prof. E. O. Jordan in a recent address.

THE METHOD OF TEACHING THE FUNDAMENTAL MEDICAL SCIENCES

It is contended by some that the method of teaching these medical sciences to medical students must be essentially different from that by which they would be studied by persons having no intention of entering into clinical or practical medicine. In my opinion this notion is fallacious. Fortunately, in the better medical schools this idea is rapidly coming to be more a matter of theory than of practice, for with the transfer of the teaching of these sciences to the hands of men who are devoting their lives to their pursuit, the method of instruction grows constantly more broad and thorough. No sharp line can be drawn between applied and pure science, and the only effective method of approach in any branch, no matter in what direction it is to be later applied, must be through a broad, comprehensive study of its principles, facts and methods. Such a knowledge is most likely to be secured when the study is at first pursued, with little reference to its later application. The student is then less likely to be distracted into the error of neglecting those phases of the subject which he

fancies are of no importance in the vocation for which he is preparing himself and of laying stress only on those things which he believes to be important. One can not study the application of any branch of learning until he has a fairly comprehensive knowledge of the branch itself. The mistake which our normal schools have made, and which has resulted in such an unsatisfactory product, has been in endeavoring to teach young women and men "how" to teach subjects of which they know little or nothing. An exactly analogous blunder has been made by the medical colleges in attempting to teach medical chemistry, for example, to young men who know no chemistry. To this faulty method is due the fact that so few physicians can read intelligently much of the present day medical literature with its constant reference to modern chemistry and its application to medicine. It is believed that the physicians of the coming generation, who have had their chemical training on the broad, thorough lines of the college or university, will experience much less difficulty in this regard. To students thus trained in chemistry and the other sciences fundamental to medicine, all clinical pathology, medicine, surgery, obstetrics, etc., are simply applied physics, chemistry, anatomy, histology, embryology, physiology, physiologic chemistry, bacteriology, pharmacology, and fundamental pathology, and they will be studying these as "applied" sciences throughout the rest of their lives. It is perhaps a matter of less importance whether these departments of anatomy, etc., be classified as in the college of science or in the college of medicine, though, to my mind, it is a distinct advantage to have them regarded, primarily, as departments of science. The important thing is that the spirit and method of instruction shall possess that breadth of view and insistence on thoroughness and exactitude which has surely, in our past experience, been more commonly found in the college of science. One of the chief fruits of the combined course, as offered in some schools, is the fact that it has resulted in securing for these sciences recognition as branches of general learning—as being "pure" quite as much as "applied" sciences.

DOES THE PLAN DEGRADE THE BACCALAUREATE DEGREE?

With the medical sciences taught along the lines which have been indicated, does their inclusion in the curriculum leading to the baccalaureate degree tend to degrade it? For those who still hold allegiance to the old rigid, classical curriculum, undoubtedly it must seem so, but for those who accept the modern idea of what the baccalaureate degree signifies—an idea all but universally accepted—it is difficult to conceive how any objection can be entertained as to the validity of these medical sciences in such a curriculum. The question of the acceptability of credits for work in these fundamental medical sciences, if we grant their right to a place in the university curriculum, must logically be determined without any reference to their subsequent acceptance in the medical school.

WHAT DOES THE BACCALAUREATE DEGREE STAND FOR?

In former years the degree of A.B. was granted by the American colleges on the completion of a classical course, rigidly prescribed for every student. There probably never was a time when the degree meant exactly the same course of study in any two colleges, but the differences were not material. The degree of B.S. was granted for the successful completion of a course differing from the arts course in the substitution of work in science for some of the Greek, Latin, or other branches, usually in the junior and senior years of the curriculum. In the B.L. or Ph.B. degree the substitution of some modern language for Greek was the essential modification. In most of the large universities, and in many colleges under the elective system, these degrees have ceased to have any such significance. To quote from one of our greatest educators:

> The general growth of knowledge, and the rise of new literatures, arts and sciences during the past two hundred and fifty years have made it necessary to define anew liberal education and hence to enlarge the significance of the degree of bachelor of arts, the customary evidence of a liberal education.
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> Is this traditional degree of bachelor of arts, which, for three hundred years, at least, has had a tolerably clear meaning, to be deprived of all exact significance, so that it will be impossible to tell what one who holds the degree has studied? I reply that the degree will continue to testify to the main fact to which it now bears witness, namely, that the recipient has spent eight or ten years, somewhere between the ages of twelve and twenty-three, in liberal studies.
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> The worthy fruit of an academic culture is an open mind trained to careful thinking, instructed in the methods of philosophic investigation, acquainted in a general way with the accumulated thought of past generations and penetrated with humility. The choice offered to the student does not lie between liberal and professional or utilitarian studies. All studies which are open to him are liberal and disciplinary, not narrow or special. Under this system the college does not demand, it is true, one invariable set of studies of every candidate for the first degree in arts; but its requisites for the degree are none the less high and inflexible, being nothing less than four years devoted to liberal culture.

THE ELECTIVE PRINCIPLE

As to the propriety of allowing the college student to choose his studies, I quote from the same pre-eminent authority:

> The next educational principle which I believe to apply to two-thirds of the entire educational course between five and twenty-five years of age, is the principle of selection or election of studies. In the first three or four years of a child's education, say from five or six to nine years, there are not so many possible subjects of equal value and necessity but that the child may pursue them all to some adequate extent; but by the ninth or tenth year of age more subjects will claim the child's attention than he will have time for and therefore arises the necessity for election of studies. As the child advances from the elementary to the secondary school and from the secondary school to the college, the number and variety of subjects from which to choose will rapidly increase until, in the department of arts and sciences in the university he will find that he cannot attempt to follow the one-twentieth part of the instruction offered him. . . . Who shall make the selection? is really the only practical question. The moment that we adopt the maxim that no subject shall be attempted at all, unless it be pursued far enough to get the training it is fit to supply, we make election or selection of studies a necessity. This principle has now been adopted by all colleges and universities worthy of the name.
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> A mental discipline which takes no account of differences of capacity and taste is not well directed. It follows that there must be variety in education instead of uniform prescription. To ignorant or thoughtless people it seems that the wisdom and experience of the world ought by this time to have produced a uniform course of instruction good for all boys, and made up of studies permanently pre-eminent; but there are two strong reasons for believing that this convenient result is unattainable; in the first place the uniform boy is lacking, and, in the second place, it is altogether probable that the educational value of any established study, far from being permanently fixed, is constantly changing as new knowledge accumulates and new sciences come into being.

IS THE STUDENT COMPETENT TO CHOOSE HIS STUDIES?

And who shall make the selection? Again I quote:

A well-instructed youth of eighteen can select for himself, not for any other boy or for the fictitious universal boy, a better course of study than any college faculty, or any wise man, who does not know him and his ancestors and his previous life, can possibly elect for him. I have never known a student of any capacity to select for himself a set of studies covering four years, which did not apparently possess more theoretical and practical merit for his case than the required curriculum of my college days.

When the revelation of his own peculiar taste and capacity comes to a young man, let him reverently give it welcome, thank God and take courage. Thereafter, he knows his way to happy, enthusiastic work, and, God willing, to usefulness and success.

And if the student's tastes, capacity and ultimate goal incline him to select the fundamental medical sciences as a part of his arts or science course, shall he be denied the privilege? Are these studies not calculated to make for "liberal culture?"

THE CULTURAL VALUE OF THE MEDICAL BRANCHES

I quote again from the same authority:

The training of a medical student, inadequate as it is, offers the best example we have of the methods and fruits of an education, mainly scientific. The transformation which the average student of a good medical school undergoes in three years is strong testimony to the efficiency of the training which he receives.

It speaks volumes for the force of medical practice that out of such raw material there could be produced in the course of a few years so fair a proportion of skillful, humane and successful practitioners. We have here a demonstration that medical study, contrary to the too common opinion, is, to a man of ordinary intelligence and conscientiousness, refining, developing and uplifting.

There is no line between culture subjects and professional subjects. There is absolutely no line. I read the other day an admirable definition by President Hadley of what we wanted the college to effect, not the professional school—presumably Yale College. He said we wanted to teach the college youth civic duty and religious earnestness, and health of mind and religious aspiration; he wanted to teach him public service as the root of American life and therefore of American education. Now, that is true as gospel, gentlemen. It is the educational gospel. But, in my judgment, it is not the gospel of the American college only, it is the gospel of American education from the primary school through the professional school, and I know of no subject better adapted to develop the sense of civic duty, of public service, and of moral and religious earnestness, than the subjects taught in the medical school.

Shall we not agree with these significant and emphatic expressions from one of the greatest educators of our time? And if we do so agree, can there be any possible doubt of the propriety of including the fundamental medical sciences in the university curriculum and counting credits for work therein on the course for a baccalaureate degree? So far from degrading, does not such a procedure enlarge the possibilities of the course and enhance the significance of such a degree?

HAS IT DEGRADED THE DEGREE OF M.D.?

Has the combined course operated to degrade the degree of M.D. and to lessen its significance in the United States? Up to five or six years ago no medical college in this country, with one exception, required more than a high school diploma for admission—most of them admitted students with considerably less than this. The exaction of two years of college work, the minimum demand of the combined course, was therefore a marked advance on previous standards. Moreover, it appears to have been the step which has brought about a general advance in admission requirements. For nearly twenty years we have had in this country a medical school whose minimum requirement is the possession of a bachelor's degree. Its high standards and distinguished service have been a source of great pride and satisfaction to the American medical profession. Such an institution was needed at the time of its foundation—but we have needed perhaps far more, a general uplift all along the line—an elevation of the character and the standards—especially of admission—of all medical schools. No material progress was made toward such an increase until the proposition to require one or two years of college work (not four) was made a few years ago. How gratifyingly rapid has been the upward movement since that time is shown by the last report of the Council on Medical Education of the American Medical Association. About sixty medical colleges have announced their intention to require at least one year of college work by the autumn of 1910; over thirty of these colleges will require two years; the state boards of medical examiners in at least two states no longer recognize the diplomas of medical students who do not take two years of premedical college work, and four others are soon to exact at least one year of such work. Emphatically, the combined course has not degraded but has distinctly elevated the degree of doctor in medicine as conferred in the United States.

WORLD-WIDE UNIFORMITY OF STANDARDS

It has been urged by some that we should seek in this country such standards as would make the degree of M.D., as conferred in the United States, uniform with that given throughout the world. It is to be said of this suggestion that it is impracticable, indeed impossible, because there is no uniformity of standard in the other parts of the world. A glance at the report of the Council on Medical Education, in which the facts in regard to this matter have been very fully and very clearly set forth will show that the degree of M.D. means one thing in Great Britain, another thing in France, yet a different thing in Italy, and still another in Germany, while in the Scandinavian countries it means a more prolonged period of systematic college work than anywhere else in the world. Of these several standards it is likely that a considerable majority of the medical profession of America would regard the medical standards and curriculum of Germany as approaching most nearly the ideal to which we in this country should seek to conform. Opinions differ somewhat as to just what, in our American school system, the German gymnasium most nearly approximates. It has been declared, by some, that the completion of the course in the German gymnasium means no more than the diploma from our better high schools. By others it is regarded as about the equivalent of a baccalaureate degree from an American college. The correct opinion probably, and that held by the majority of educators, is midway between these two estimates; it holds the gymnasium certificate to be about equivalent to the completion of the sophomore year of the better American university or college. If this be the case, the combined course of six years, leading to the degree of B.S. and M.D., with the additional year of interne service now sought and secured by a large number of medical graduates, approximates

closely indeed to the German plan. This fifth or interne year is shortly to be made, in at least one institution, a prerequisite for the degree of M.D.

ARE TWO DEGREES DESIRABLE, SUCH AS M.B. AND M.D.?

Again it has been argued that if we are to admit students to the medical school with only two years of college credit, while many others present a baccalaureate degree, then some distinction should be made between these two groups in the kind of medical degree conferred. It has been suggested, for example, that the degree of M.B. be conferred on those students not possessing an A.B., B.S. or corresponding degree, before entering the medical school, reserving the degree of M.D. for those students who were college graduates before taking up the study of medicine. This would make the degree of M.D. a secondary or higher degree corresponding to the master's degree, and, some apparently have thought it might even come to have the significance of a Ph.D. It is a serious objection to such a plan that it would involve the amendment of the medical practice acts in many states in which the possession of the degree of M.D. is made an essential prerequisite for licensure. Under this arrangement, these two medical degrees would not be at all equivalent to the corresponding degrees in vogue in Great Britain and some of her colonies. Moreover, the degree of M.D. could never come to have a significance corresponding to that of a master's degree or to the degree of Ph.D., unless the requirements were made equally rigid. Is it not far better that the college graduate who enters the university medical school should find it possible to secure one or both of these higher academic honors, the M.S. or Ph.D., and should he not be encouraged so to do by accomplishing "masterly" or "doctorate" work in one of the medical sciences? The regulations governing these higher degrees should be in no wise relaxed, and they make it impossible for any medical student to secure them by the mere perfunctory accomplishment of the regular medical curriculum. By prolonging his residence, however, one or two years, doing creditable research in one of the medical sciences and presenting the results of his investigation in an acceptable thesis, he has the opportunity to secure this higher academic distinction (with the superior training and power for which it stands), by special research in anatomy, physiology, bacteriology, or any other of the sciences fundamental to medicine.

THE DEGREES OF M.S. OR PH.D. FOR WORK IN THE MEDICAL SCIENCES

That such accomplishment is entirely practicable in connection with and by extension of the regular medical courses in the university has already been demonstrated in at least one university, where, in the last decade ten or twelve students in the medical department have secured the degree of Ph.D., and several others the master's degree. The gain to these students in power and prestige and the gain to the medical profession which they enter can hardly be overestimated. Will it not be a distinct advantage to science, as well as to medicine, when investigative work, of the right sort, in even the clinical branches of medicine, is generally recognized as worthy of credit in the course for a Ph.D. degree, and the real unity of the applied medical sciences with the pure medical sciences is thus emphasized?

THE BEST PREPARATION FOR MEDICAL STUDY

Does the two years of college premedical work demanded by the combined course afford the best preparation for the study of medicine? What is the best preparation? Is there an ideal uniform preparation for all students?

These questions naturally suggest themselves in this connection, and it can not be too strongly emphasized that the four years of high school plus two years of college work comprises not by any means an ideal, but simply the very minimum of preparation with which any young man can afford to take up the study of medicine under existing conditions. The absolute essentials, including physics, chemistry, biology and German, now regarded as indispensable by most medical educators, can not be covered in less time than this. That fact was clearly demonstrated by the investigation of the committee on college preparatory work, in its report to the Council on Medical Education in 1907. The maximum amount of time which one may devote to such preparatory work is merely a question of age, and is by no means uniform for all. It seems obvious that there is no limit to the amount of education, and of knowledge which one might, with advantage, use in the study and practice of medicine. But the *time* which one may spend in such education and the acquisition of that knowledge is distinctly limited by the necessity of his getting about the ultimate business of his life at a reasonably early age. There are two strong reasons for this—one economic, the fact that he must become a bread-winner, and, one psychologic, the fact that the mental faculties, like the muscular system, begin to "set" and to lose their power of adaptability to new lines of effort at a certain age, usually in the early twenties. It is almost universally agreed that a young man ought to graduate in medicine, to have his hospital training and to be started in the practice of his profession well under the age of thirty. Says an educational authority: "If a young man takes his A.B. at twenty-two, he can hardly hope to begin the practice of his profession before the age of twenty-six. That is quite late enough."

The conviction that, under prevailing conditions, the exaction of the baccalaureate degree for admission to the four years' medical course means for many young men, deferment of entrance into practical life much beyond this period, has been all but universal among educators. To meet this difficulty, it has been proposed (1) to abbreviate the college course leading to the baccalaureate degree to three years and even to two years; or, (2) to combine the collegiate and medical school course by (*a*) giving advanced credit of one year in the medical school to the holder of a bachelor's degree as formerly practiced, or (*b*) to permit the college student to take for his senior collegiate year, the first year in the professional school, after the plan in operation at Wabash College, the University of Illinois and some other institutions; or (c) by combining, in certain universities, the academic and professional courses as has been described in this paper. Those plans which secure four full years of study between the high school or academy and the conferring of the baccalaureate degree are surely much less objectionable than the proposition to curtail the time and work demanded for that degree. All of these combination plans should be permitted, under proper supervision and restrictions. Each has its advantages, and meets best the needs of certain students. No device for curtailing the amount of his preparation should be sought by or advised for the student who can "go the whole road" within the age limit of twenty-seven or twenty-eight, but for a long

IS THE STUDENT COMPETENT TO CHOOSE HIS STUDIES?

And who shall make the selection? Again I quote:

A well-instructed youth of eighteen can select for himself, not for any other boy or for the fictitious universal boy, a better course of study than any college faculty, or any wise man, who does not know him and his ancestors and his previous life, can possibly elect for him. I have never known a student of any capacity to select for himself a set of studies covering four years, which did not apparently possess more theoretical and practical merit for his case than the required curriculum of my college days.

When the revelation of his own peculiar taste and capacity comes to a young man, let him reverently give it welcome, thank God and take courage. Thereafter, he knows his way to happy, enthusiastic work, and, God willing, to usefulness and success.

And if the student's tastes, capacity and ultimate goal incline him to select the fundamental medical sciences as a part of his arts or science course, shall he be denied the privilege? Are these studies not calculated to make for "liberal culture?"

THE CULTURAL VALUE OF THE MEDICAL BRANCHES

I quote again from the same authority:

The training of a medical student, inadequate as it is, offers the best example we have of the methods and fruits of an education, mainly scientific. The transformation which the average student of a good medical school undergoes in three years is strong testimony to the efficiency of the training which he receives.

It speaks volumes for the force of medical practice that out of such raw material there could be produced in the course of a few years so fair a proportion of skillful, humane and successful practitioners. We have here a demonstration that medical study, contrary to the too common opinion, is, to a man of ordinary intelligence and conscientiousness, refining, developing and uplifting.

There is no line between culture subjects and professional subjects. There is absolutely no line. I read the other day an admirable definition by President Hadley of what we wanted the college to effect, not the professional school—presumably Yale College. He said we wanted to teach the college youth civic duty and religious earnestness, and health of mind and religious aspiration; he wanted to teach him public service as the root of American life and therefore of American education. Now, that is true as gospel, gentlemen. It is the educational gospel. But, in my judgment, it is not the gospel of the American college only, it is the gospel of American education from the primary school through the professional school, and I know of no subject better adapted to develop the sense of civic duty, of public service, and of moral and religious earnestness, than the subjects taught in the medical school.

Shall we not agree with these significant and emphatic expressions from one of the greatest educators of our time? And if we do so agree, can there be any possible doubt of the propriety of including the fundamental medical sciences in the university curriculum and counting credits for work therein on the course for a baccalaureate degree? So far from degrading, does not such a procedure enlarge the possibilities of the course and enhance the significance of such a degree?

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cluding the breast, the surgical affections
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CANCER OF THE BREAST

F. S. DENNIS, M.D.
NEW YORK

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I intend to consider very briefly some salient facts in regard to the final outcome of thirty-nine cases of cancer of the breast, the histories of which I know from the time of the operation to the present day. These thirty-nine cases have been selected from a large number solely for the reason that I have a personal knowledge of each case from the incipiency of the disease to the present moment. All these patients have lived beyond the three years' limit of time. One patient has lived twenty-five years, another nineteen years, another seventeen years, and another fifteen years, and the rest from three to fourteen years with no return of the disease. In this list one was eighty-five years and another eighty-two years old. I mention these two cases to illustrate the fact that age itself appears to offer no barrier to an operation for the relief of cancer of the breast.

I am convinced that a study of the cure of cancer of the breast from a percentage point of view only has created a very false impression among surgeons and a depressing effect on the laity. The all-important question for the surgeon and the patient is this: Can a permanent cure be effected if the operation is undertaken early, and radical in character? If this view can be substantiated it will create hope in the patient, and inspire courage in the surgeon.

The clinical picture of cancer of the breast has been so drawn in past years as to create a most unfavorable impression. The early and radical operation is certain to efface this gloomy picture, and to draw in its place one that will inspire hope in the unfortunate victims of the disease. The safety of the operation is a subject worthy of consideration. In all of the operations which I have mentioned, and an accurate knowledge of which I possess, there has not been a death except in two cases of hemophilia, and such deaths are not peculiar to this special operation, but would occur in connection with any other major operation. The mortality therefore, in several hundred cases would be almost nothing, even if these cases were included, and absolutely nothing if they were excluded. The percentage of permanent cures, on the other hand, can not be so correctly estimated because so many cases are lost sight of and therefore can not furnish data for statistical purposes. In a recent small series of cases extending over three years from the time of the operation the percentage of permanent cures amounted to 77 per cent. In a previous series the percentage was 45 per cent., but these operations were done earlier in the history of what is called the complete operation. The sum total of percentages of cure therefore, would fall below the high figure previously mentioned, and above the lower figure stated in the second series. These facts certainly en-

1. Tr. Am. Surg. Assn.

time to come a considerable proportion of earnest, capable medical students will be so circumstanced that it will not be to their best interests so to do. Experience has demonstrated that the student who has had only two years of college preparatory work, provided that has included the requisite chemistry, physics, and biology, with German and French, can pursue the medical courses alongside his fellow who has completed the college course without serious handicap. The additional two years of preparation which the latter has enjoyed is much to be desired, but its advantages are more evident in later life. A few medical schools will prefer to exclude all students who have not secured a baccalaureate degree, but the larger service to the community and to the profession is certain to be rendered by most schools if they make the entrance requirements more flexible and adjustable to the needs of a larger number of students.

IS THE COMBINED COURSE UNFAIR TO THE DETACHED COLLEGE?

It is objected by some of the colleges, having no medical departments, that the combined course is unfair to them because it tends to attract their students to the university with its medical school at the end of the sophomore year. Most of the colleges object, also, and with some reason, to the plan mentioned above, which had its origin in one of these colleges, in which a student is permitted to leave the college at the end of his junior year, taking for his senior baccalaureate course, the first year in an approved professional school—law or medicine. The contention is that these plans take the student from the college at the time when the college most desires to have him for its own.

In answer to these objections it is to be said first, that in the practical experience of at least one college, for now some years, these fears have not been realized not a single student has been tempted away by the opportunity thus offered to abbreviate his course. Second, if a few students are thus seduced from the college, there must be set off against these the hundreds of students which the increased requirements for admission to the medical school will bring to them. For a century and more the vast majority of medical students in this country have been passing direct from the common or high school, by the door of the college, into the medical school. The two years of college work now demanded by many, and almost certainly in the near future to be exacted by all medical schools, must turn this procession of students into the college, and if these hundreds of new students are thus secured to the college by the increased requirements—the direct outgrowth of the combined course—may we not reasonably feel that it is the business of the college to keep them: that it should be able to make its work so useful and attractive, and so to convince the student of the advantages of full collegiate training, as to induce him to remain until he attains his baccalaureate degree?

Two things, however, are due the college from the medical school: First, the latter should use its every effort to persuade students preparing for medicine to take the full college course if it is possible for them so to do; second, the medical school should recognize, both in time and subject credit, any and all good work done by the college in the medical branches—chemistry, histology, embryology, etc. At present it is not possible for the medical school to give such time credit. The proscription of this custom by the medical examining boards of several states constitutes one of the most illogical, unjust, unwise and probably illegal regulations which have ever been made in connection with medical education. Illogical, because credit is thus denied for work far superior to that done in the majority of medical schools recognized by these boards; unjust, because the colleges had prepared themselves to teach these subjects in large part at the urgent solicitation of the better medical schools, only to find the promised credit in the medical schools withdrawn just as their students were prepared to ask it; unwise, because it abolished an arrangement which had been one of the most effective agencies in inducing young men to secure college training before taking up medical study. In one of the states in which this obnoxious legislation was first enacted, the board has apparently never been willing to risk its submission to the courts of law. Certainly at least eight or ten graduates in medicine, to the writer's knowledge, who had been granted a year of advanced standing for collegiate work and a baccalaureate degree by the medical school from which they graduated, have settled in this state, have applied for admission to examination for licensure, have been refused, have stated their intention to continue in practice, though ready at any time to take the regular examination, and in every instance these physicians have been subsequently requested to appear for examination, have passed the same and secured the license. Within two years, the attorney-general of this state has rendered an opinion on this obnoxious regulation flatly in opposition to the contention of the board.

Undoubtedly some colleges have attempted the teaching of medical branches which they should not have undertaken at all. Undoubtedly, the holders of a baccalaureate degree from unworthy colleges were in some instances granted advanced standing by medical schools when the medical work done was wholly undeserving of such credit. But the remedy for the abuse of a good custom lies not in the abolition of the custom, but in the correction of the abuse. What the medical examining boards should have done was to have investigated all colleges teaching medical subjects for which their students claimed advanced credit in the medical school. These colleges should then have been classified, as the boards have classified medical schools, into "recognized" and "unrecognized" or "partially recognized." This important question will never be satisfactorily or finally settled until some such plan is adopted.

SHALL THE COLLEGES TEACH MEDICAL SUBJECTS?

What shall the college teach in the fundamental medical branches? No more important question confronts the colleges to-day than this one. I have visited many scores of colleges in the past few years, and everywhere this question was among those that were uppermost in the minds of the faculties. One thing seems certain, and that is that the answer is by no means uniform for all. What subjects each college should include in its curriculum depends on many factors of locality, equipment, resources, the predilections of its teachers, the demand of its students. To settle this point there is needed the most careful deliberation of its faculty, and the advice and cooperation of those engaged in medical education. The college is much more likely to err by attempting to teach too many things than by offering too few. Many excellent colleges are unfitted to teach any medical branches at all, while others, even among the smaller schools, are doing efficient work in such subjects as histology, embryology, physiology, and human anatomy with dis-

work can be further helped by making this course coincide, when possible, with the lectures on surgery.

The subjects to be taught and the order and manner in which they shall be approached are matters on which all may differ and still attain good results. I have found the old method followed in the teaching of surgery, according to systems, very satisfactory and see no reason to change. I usually begin by considering the fundamental essential for surgery, namely, regeneration and repair in the various character of tissues; then I take up the diseases of the skeletal system, the surgical affections of the gastrointestinal system from the lips to the anus, including the gall bladder and pancreas, the thyroid gland, the genital system in male and female, including the breast, the surgical affections of the urinary system and, finally, the lymph system and miscellaneous conditions, as skin tumors, etc.

In treating all these subjects, whenever time will permit, a very hurried survey is first made of the anatomy, histology and physiology of the organ or region to be studied in order that the student may have at hand all the data necessary for the proper application of his pathologic knowledge to the study of the living patient. The pathology of the condition and the latest experimental findings are then gone into as carefully as possible with especial stress on their relationship to other organs and the region affected when such relationship exists. Methods of transference of conditions with routes, whenever traceable, are studied in detail, as in the case of metastasis of tumors, etc. Symptoms and recognized methods of treatment are touched on only when there is a pathologic lesson to be derived or when their own origin is easily and distinctly traceable to some plainly demonstrable macroscopic or microscopic pathologic condition. In other words, the student's attention is called to symptoms only when necessary to show how clearly dependent they are on abnormalities of structure, causing abnormalities in physiologic function. He is not required to know them as forming a clinical entity, but whenever possible an effort is made to make it easy for him to conjecture as to their presence from a simple process of deductive reasoning. The whole subject is then clinched by a couple of hours spent in the laboratory studying microscopic and gross specimens covering the subject considered.

This I submit as my answer to the query. "What is surgical pathology?" The subject as a distinct specialty is comparatively young, and courses in the various colleges are of very recent date. We feel that with proper encouragement both by students and co-educators much good can be accomplished for the student, his burdens made lighter instead of increased, his mental attitude toward medical subjects broadened, and at the same time there will develop a set of men trained in experimental surgery and pathology, well equipped to take up the burdens when time shall rob us of the masters of to-day.

2131 North Fifteenth Street.

Carbohydrates in Diabetes.—I. V. Lemann, in the *New Orleans Medical and Surgical Journal*, April, states that each case demands separate study, because cases differ not only in grade but in kind also. The tolerance of patients to various carbohydrates is different. Various complications call for alterations in diet, and unless the physician is prepared to give intelligent attention to these details he can not hope for good results from the diet he prescribes for his diabetic patients.

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courage the surgeon to hope for even better results, and as we learn more about the disease and still further improve the technic of the present operation, the future holds out even greater encouragement for more brilliant results in the cure of a disease, which in former years baffled the skill of the greatest surgeons of the day.

PERMANENT CURE

The permanent cure of cancer of the breast is a subject in which the surgeon as well as the patient take the greatest interest. All other subjects, such as etiology, diagnosis, operation, and the like, are insignificant to the patient as compared with that of the permanent cure.

What constitutes a permanent cure? Authorities differ on this question. No one is willing to admit a less time than three years as decisive. Recently some surgeons have placed the limit of time as five years. In some of my cases ten to eighteen, and even twenty-five years have elapsed with no return of the disease.

The percentage of returns after three years is so insignificant that it would seem wise for surgeons to accept this standard, not only for the encouragement of the patient, which is no small fact in the management of the disease, but because it establishes a fixed standard from which the case from an operative as well as an optimistic point of view can be judged.

ADVISABILITY OF OPERATION IN ADVANCED CASES

There is much diversity of opinion on this question. From my own experience I feel certain that it is a wise course to operate unless the mediastinal glands are involved, or unless there is visceral metastasis, or the growth is adherent to the chest wall. I have been astonished at some results after operation, in cases in which I felt absolutely certain a return and death would follow in a few months. Yet these patients have recovered and have remained free from the disease for years, and thus have demonstrated the error of a too conservative view held by the profession at large.

In some cases in which the outlook was most unfavorable, as manifested by extensive ulceration, hemorrhage, wide-spread axillary involvement, the final results have been entirely satisfactory. No better proof of this statement can be made than by a brief reference to three cases occurring in the list of thirty-nine cases of cancer of the breast. It seems pertinent to call attention to these three cases because they demonstrate the possibility of a cure when everything looked hopeless. I admit that we can not place much reliance on a cure when cases present such a chain of unfavorable symptoms. It only shows that surgeons should not withhold an operation from the patient, even when the outlook is most discouraging. The patients should have the benefit of the doubt; it is always best, however, to explain to the friends the situation, and then they will not be too greatly disappointed if the operation is attended with a quickly fatal result.

The first patient had a foul, ulcerating, hemorrhagic, and fungous breast, with axillary enlargement. I advised the operation, not with the expectation of curing the disease, but purely from an humanitarian point of view. I felt sure that the hemorrhages could in a measure be controlled, the offensive smell to a greater or less extent be removed, the constant pain, at least for a while, be relieved, and the patient be made more comfortable during the few months she lived. To my surprise after nine years this patient has been free from the disease, and to all intents and purposes is at the present time in perfect health. The operation was radical as the circumstances permitted, and I am at loss to explain the cure under these unfavorable conditions.

The second patient was the victim of a fungous, hemorrhagic foul-smelling carcinoma of the breast. I hesitated to operate at all, but did so at the request of the husband, with a full understanding that the operation was one to palliate the distressing symptoms, and with no expectation of cure. This operation was performed five years ago, and only recently the patient died from an acute disease, with no evidence of any return of the cancer.

Both of these tumors were examined by microscopists of world-wide reputation, who pronounced them carcinoma. I merely mention these two cases in the list of thirty-nine to illustrate the fact that sometimes recovery takes place in the most hopeless cases. Such instances appear to me to urge the surgeon to operate in the most desperate cases, with the most forlorn prognosis, unless, as previously indicated, there is involvement of the mediastinal glands, or visceral metastasis, or adhesion of the growth to the chest wall. I can offer no explanation as to the behavior of these two tumors, but they both seem worthy of record as evidence that our knowledge is still incomplete in regard to the course of certain types of cancer of the breast.

The third case is one in which I had operated nearly ten years ago and later a metastasis occurred in the lung with an extensive hemothorax. By aspiration a very large quantity of bloody fluid was withdrawn to relieve a severe dyspnea. To my utter astonishment, this patient, after the paracentesis, began immediately to improve from an almost bed-ridden condition, and for many years was in fairly good health and was in the habit of coming to my office from a distance for two or three years. From a study of these cases, bearing on the subject of permanent cures, I have been impressed with the fact that the histologic formation of the tumor influences in a marked degree the question of permanent cures. For example, I have found that the tumors which show structures departing but slightly from the normal, correspond in nearly every case with the group of cases, the clinical histories of which were favorable, because in these cases no return of the carcinoma occurred. The tumors that showed a great departure from the normal structure occurred in the cases with unfavorable clinical histories. The more typical the structure, therefore, the more favorable the prognosis; the more atypical, the more unfavorable the prognosis. In other words, epithelioma develops by asexual cell proliferation; the more embryonic the cell is, the more malignant the growth; and the nearer the cell approaches the normal, the less malignant the growth.

CONDITIONS REQUIRED FOR COMPLETE RECOVERY

The early and radical operation is of paramount importance, since the facts I have already mentioned clearly demonstrate the value of this rule. The early operation is indicated because glandular infection is not likely to be present, and the patient is in better physical health, from absence of worry and pain. This fact should impress the family physician with the responsibility of referring his patient early to a surgeon, who then must assume the responsibility of this important question. No growth in the breast, however small, should be disregarded, especially if the patient is ap-

approaching the menopause. It is by a view to prophylaxis that the mortality of death from cancer of the breast is to be still further reduced.

The more radical the operation, within reasonable limits, the better the prognosis. It seems unnecessary and a loss of time to discuss this point, since it is universally admitted that the more radical the operation, the less likely it is that the disease will return. The difficulty seems to be as to what constitutes a radical operation. Surgeons agree that all skin over the infected area should be sacrificed. The breast, with Sir Astley Cooper's ligaments, should be entirely removed, the pectoral fascia and muscles should be excised, the axillary glands, the perimammary and retromammary fat, likewise the paramammary areolar tissue should be dissected out as the minimum operation. If the cancer involves the ribs, perforates the thoracic wall, and has already infected the mediastinal glands, no operation, however radical, would be attended with any success. The same rule may also apply to that form of cancer termed *en cuirasse*, or *en plaques*, or acute miliary carcinosis. I am firmly convinced that any radical operation, more than has been described, will be of no avail. The element of time should be seriously considered, since the performance of any operation which requires the patient to be under an anesthetic for four or five hours, is attended with a risk, which if possible should be obviated. These prolonged operations are sometimes followed by ether pneumonia, acute sepsis, profound shock, suppression of urine, and many other like conditions, which jeopardize the life of the patient. In other words, we must not lose sight of some of the general principles connected with surgery, at the expense of the elaboration of an operation, the performance of which eliminates some of the best precepts and practices of our art.

In most of my cases in which no return has ever occurred, even though twenty-five years have elapsed since the operation, the patients, almost without exception, were operated on within six months from the first appearance of the disease. This point seems to me of the greatest importance in relation to the prognosis, and without question the earlier the operation the more certain it is that a permanent cure can be effected. At this point naturally the question arises as to a certainty of diagnosis within six months. I admit that it is often difficult to determine with absolute certainty that any small nodule in the breast is carcinomatous. The obstacle presented by the theory that a correct diagnosis of carcinoma within six months is a *sine qua non* for operative interference has been removed in my own mind, by a rule that all nodules or tumors in a breast in a woman at the time of or near to, or after the menopause, especially with a depressed nipple and skin dimpling, should be removed by a complete ablation of the breast. The risk run is too great if surgical interference is deferred until the diagnosis is made certain.

In several cases during the past few years I have adopted this procedure, and to my surprise the microscopic report has been returned with the diagnosis of incipient epithelioma. In such cases the patients do well as they are taken early in the course of the disease, and the nodule is small and surrounded by healthy glandular tissue. In the hands of a good surgeon with aseptic environment the risk of removing the breast is so slight that it may almost be disregarded as a factor in determining the question of an operation.

A point still further to consider is that in a large majority of cases in which a nodule or tumor is felt, it is almost certain in time to become malignant, if it has not already begun to undergo malignant degeneration. This same law of early surgical interference holds good in case of tuberculous induration, in syphilitic ulceration, in actinomycosis, or in other infective processes.

The question is more difficult when the patient is a young woman, and the growth is adenomatous. Such cases are more difficult to manage; but I am still of the opinion that all adenomata in the young should be removed, and in the case of very young girls only the nodule itself excised and examined, and if then found to be undergoing epitheliomatous changes, the entire breast should be removed by a radical operation. In the case of young girls or young women, the breast can be raised by a flap with an incision under the breast and in its fold, and turned on the thoracic wall, and the adenoma attacked from the posterior surface of the gland. After excision of the adenoma the breast can be turned down and sutured with the scar completely hid from view. I have done this and preserved the symmetry of the breast; and I have record of cases of this kind in which the breast subsequently performed its function of lactation.

In cases of chronic mastitis in a woman over forty, if pain is a constant factor, and the interstitial induration is marked, the breast should be removed to prevent the possibility of malignant degenerative changes. Within a few weeks I removed a breast for painful mastitis, and Dr. Norris reports that beginning epithelioma is present.

THE MANAGEMENT OF CASES THAT DO NOT ADMIT OPERATION

These are the cases that tax the surgeon's skill, and cause severe suffering to the patient. Nothing is more distressing to the surgeon and painful to the patient than to watch the progress of a fatal disease with the full knowledge of the condition—both waiting, utterly helpless, until the end comes, and death closes the scene.

In such cases the surgeon's duty is to mitigate the suffering, and to make the patient as comfortable as possible with a view to euthanasia. The different methods of treatment of cancer of the breast, in cases in which no operation is possible, can be discussed very briefly. The *x*-ray is one of the methods now in vogue. One writer has reported a dozen cases of cancer of the breast in which cures were effected by the *x*-ray. The absence of a microscopic examination of any of the tumors, and the fact that not a single case in the list had yet reached the three years' limit of time make these cases valueless as a basis on which to study results.

The *x*-ray is a force that should not be employed by one who is not an expert in its use, because its employment even by the best men has been followed by violent dermatitis, by ulcers that fail to heal, and that finally became the starting point of epithelioma. In a recent article by Pusey, some interesting clinical facts have been brought out in connection with the *x*-ray, which are worthy of mention. He thinks that the *x*-ray is not suitable for cases of carcinoma in which the adjacent lymph nodes are involved. It is also futile in cancer of the neck, or of the viscera. In recurrent carcinoma of the breast, alleviation of suffering for a few months has followed the *x*-ray treatment, but no cures have

more than one-fourth of all breast cancers. I have only once operated on mother and daughter. Both, I am pleased to say, are still living in good health, the daughter having been operated on in June, 1904, and the mother in July, 1906. The case of the latter was one of the most interesting I have ever seen, inasmuch as the removed specimen demonstrated cancer and a number of very small abscesses—which I think were tuberculous—and Professor McFarland, the pathologist, was unable to say which was the primary condition. A photograph of the specimen is shown in my book.[1] I have frequently operated on women who gave a history of cancer of the breast in their mothers and sisters, and occasionally it has shown itself in three generations—grandmother, mother and daughter.

Before leaving the subject of diagnosis, it must be candidly admitted that in about 10 per cent. of patients cancer of the breast can not be recognized clinically in its early or operable stage, for in addition to the difficulty of differentiating between solid growths, it is even more difficult to distinguish between benign and malignant cysts. This can safely be determined only by the microscope, and that it is necessary to be most careful in separating the one from the other no experienced surgeon will deny.

It is true that a bloody or sanguinolent discharge indicates malignancy, but a clear fluid does not by any means demonstrate benignity. Nothing save the microscope can positively discriminate between simple and malignant cysts. Hence, the danger of any other treatment than excision, not only of the entire cyst wall, but of enough adjacent tissue reasonably to insure eradication of the disease. I would emphasize the fact that cysts are often malignant when they would seem macroscopically, on account of their thin walls and clear contents, to be innocent; furthermore, that the degree of their malignancy is very great, so much so that a mistake made at the time of operation may not, probably will not, be atoned for by a second and more complete operation after the microscopist has made his report. In the first place, a radical second operation, even if performed within a fortnight, is likely to result in failure on account of the liberation and distribution of epithelial cells at the time of the first operation. Secondly, the patient will generally refuse a second operation; and it is most embarrassing to the surgeon to be placed in such a position. Here, as elsewhere, partial removal may do more harm than good, stimulating the remaining cells to an unwonted growth. Therefore, there is but one reasonably safe and certain method to follow in doubtful cases: the patient's consent to a complete operation should first be obtained, explaining fully that it will not be resorted to unless the microscopic examination made at the time of the operation demonstrates its necessity. The most suspicious part of the growth should be removed, along with adjacent structures if possible, and given to a microscopist who is present and who is, moreover, familiar with making reports from frozen sections. The wound should be instantly plugged with gauze, then cauterized with the actual cautery. In this way *only* will the danger of possible dissemination of cancer be minimized. I have followed this plan more than fifteen years and have known but one malignant tumor mistaken by the pathologist for a benign one. In this case the mistake was more than pardonable, although a clinical diagnosis of cancer had been made, as it was not until many sections had been cut at the second or confirmatory examination ten days after the first operation that carcinomatous tissue was encountered. In other words, the portion of the growth first examined was benign. That at the second examination was also found to be benign, until the thirteenth section was made and examined. Figures 1 and 2, from photomicrographs of the only lobule involved, indicate the malignant change to be in its incipiency. The pathologist, Dr. Wieder, thinks it as early, and therefore as favorable a case as he has ever examined. I am indebted to him for these excellent photomicrographs. The patient was advised to have and fortunately accepted the second operation.

Admitting that mistakes must occasionally occur in the hands of those doing frozen section work, it is no more than we must expect even in the less rapid and presumably more careful work ordinarily done in the pathologic laboratory; for I have known some of the very best pathologists to make mistakes and reverse themselves after several examinations of the same tumor. Only a few weeks ago I removed what I supposed to be a large sarcoma of the breast. Figure 3 shows this specimen. In ten days after the operation the report came back from the laboratory "sarcoma undoubtedly," four or five of the best pathologists in Philadelphia having examined the specimen. In fact, it was shown at the Pathological Society of Philadelphia. Several weeks afterward a second report was sent me to the effect that the tumor was also in places carcinomatous. This opinion has been expressed by pathologists of very highest standing, among the number Professor Smith of the University of Pennsylvania, and Dr. Repplier of the Presbyterian Hospital. It is only reasonable to suppose that such apparently contradictory reports must now and then result, notwithstanding every precaution to insure accuracy primarily. This is the only case I have ever encountered in which there were both sarcoma and carcinoma undoubtedly present in the same specimen. Others have reported such cases, and it explains many strange and inconsistent things in the subsequent history of cases. For instance, it explains why the secondary or daughter growth did not resemble the parent neoplasm.

COMPLICATIONS

Next to the variety of the growth, the prognosis is most influenced by the presence or absence of enlarged glands in the axilla and elsewhere. This fact has been emphasized by every writer from time immemorial. It has been made more definitely clear by the recent statistics of the Johns Hopkins Hospital[2] and the Massachusetts General Hospital,[3] in both of which series the cases were carefully scrutinized with reference to the involvement of the axilla. In 64 of 232 patients operated on in the Johns Hopkins Hospital, in whom there were undemonstrated glandular involvement, 51 or 80 per cent. were free from recurrence at the expiration of three years. Of 110 patients with demonstrated axillary involvement, only 24.5 per cent. were free from recurrence at the expiration of three years. Of 236 patients with palpable axillary involvement, before operation, operated on in the Massachusetts General Hospital during the decennium from 1894 to 1904, only 12 per cent. were cured by operation. Of 117 patients operated on in the same hospital, in whom no glands were felt in the axilla, 29 per cent. were cured. In nearly all of the cases, even though palpable enlarge-

2. Halsted: Tr. Am. Surg. Assn., 1907, xxv, 64.
3. Greenough, Simmons and Berney: Tr. Am. Surg. Assn., 1907, xxv, 90.

ment of the glands was not manifest, there was found to be microscopic involvement. It is only fair to suppose that limited involvement of the axillary glands may be successfully met by operation, for in such cases the epithelial cells are confined to the interior of the glands and therefore can be entirely removed. But if there is gross involvement of the axilla, particularly if the glands have become matted and fused together, the presumption is that the capsule and tissues around the glands have also become infected and that the prognosis even after an extensive operation, must necessarily be bad. The advantage resulting from early operation, before there is palpable involvement of the axilla, and the hazard of delay until axillary involvement has taken place, could not be more forcibly shown than has been done by the statistics of two such large and representative hospitals. Moreover, the experience in these hospitals, and in all others so far as my knowledge goes, demonstrates forcibly that in cases in which axillary involvement is so great as to make resection of the axillary vein necessary in order seemingly to get beyond the encroachments of the disease, operation, though possibly prolonging life, has not resulted in a single cure. I would again insist on the fact that no one, however skilled, can always or usually recognize before operation the presence of enlarged axillary glands; and that such enlargement, though not detected beforehand, will nearly always be encountered when the axilla is carefully explored. It is certainly never safe to assume that enlarged axillary glands do not exist. In all cases, even cases of adenocarcinoma in which glandular involvement is less apt to occur than in other varieties, a thorough dissection of the axilla is just as important as removal of the breast itself. Only once have I operated for either medullary or scirrhous carcinoma without encountering unmistakable enlargement of the axillary nodes when the axilla was explored. Frequently I have failed to detect such enlargement before operation.

Next and hardly secondary in importance to involvement of the neighboring lymphatic glands is the adhesion of the growth to neighboring structures, notably the skin and pectoral wall. Every surgeon has recognized the gravity of adhesion to the chest wall and the comparative futility of operation to give more than temporary relief. The statistics of the Massachusetts General Hospital, while clearly indicating this to be a serious complication, show that of 45 such patients, 5, or 11 per cent. passed the three-year limit without recurrence. Of 194 cases in which there was no adhesion to the chest wall, 41, or 21 per cent., were successful. Where the skin alone is adherent, the prognosis, while less favorable than in cases without adhesion, is better than it is where adhesion to the chest wall is present. Of 262 patients with adherent skin, only 42, or 16 per cent. were cured by operation. In 71 patients in whom the skin was not adherent, 23, or 37 per cent., were cured. Therefore, this complication is of much greater importance than it would at first seem, and its unfavorableness is easily appreciated by remembering the fact that the largest and most important of the lymph-bearing channels are found in the skin.

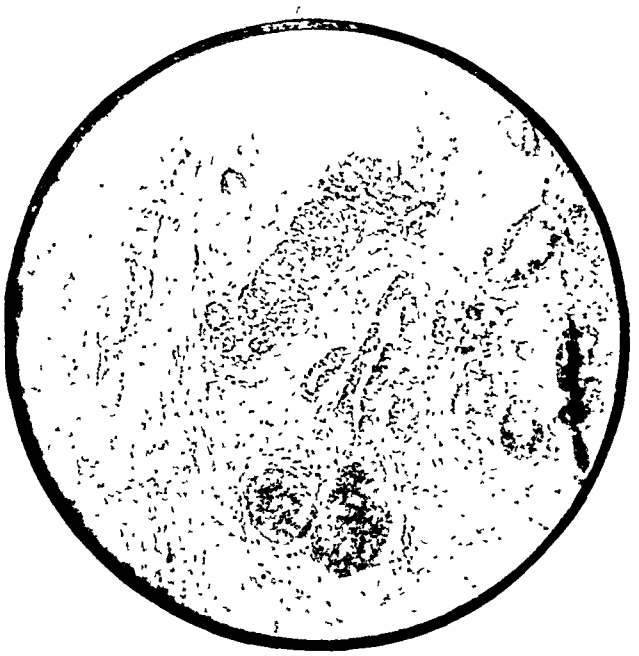

Fig 1—Specimen from malignant tumor, at first mistaken for benign growth; low-power view of only lobule involved

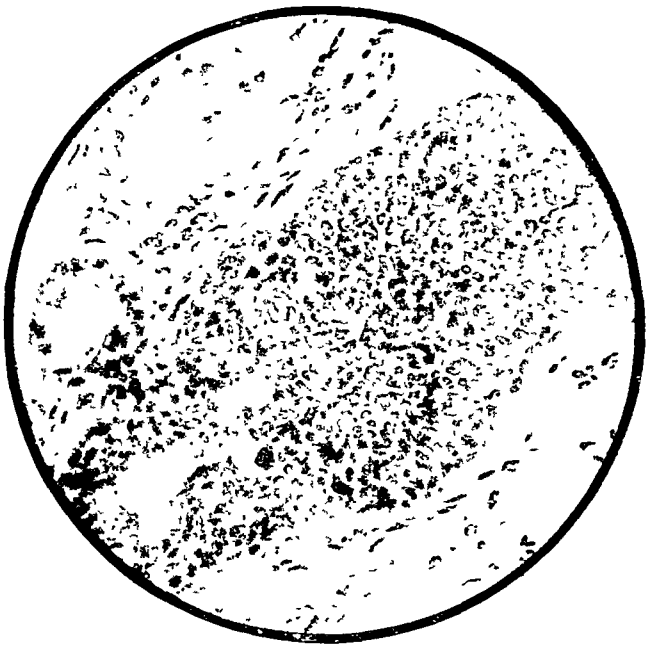

Fig. 2—High power view of same acinus shown in Figure 1

ENLARGED SUPRACLAVICULAR GLANDS

Palpable enlarged glands above the clavicle have always been considered by surgeons to be the gravest of complications, and practically to preclude operative relief. In fact, they have almost universally been looked on as a positive barrier to operation. While of the greatest significance, it must be remembered that such enlargement may be inflammatory. Of 40 patients with palpable neck involvement operated on in the Massachusetts General Hospital,[3] 2 were found to be free from carcinomatous involvement and were well three years after operation. All of the remaining 38 cases were fatal. Of 40 operative cases in the Johns Hopkins Hospital[8] with positive involvement of the neck and the axilla, 3, or 7.5 per cent. were cured. This is perhaps the best showing that can be made in this class of cases, inasmuch as the neck operation was first advised and has been insistently carried out at the Hopkins Hospital during the past fifteen years. While I have never known a patient of my own with either palpable or microscopic involvement of the supraclavicular glands to be cured by operation, I did have one

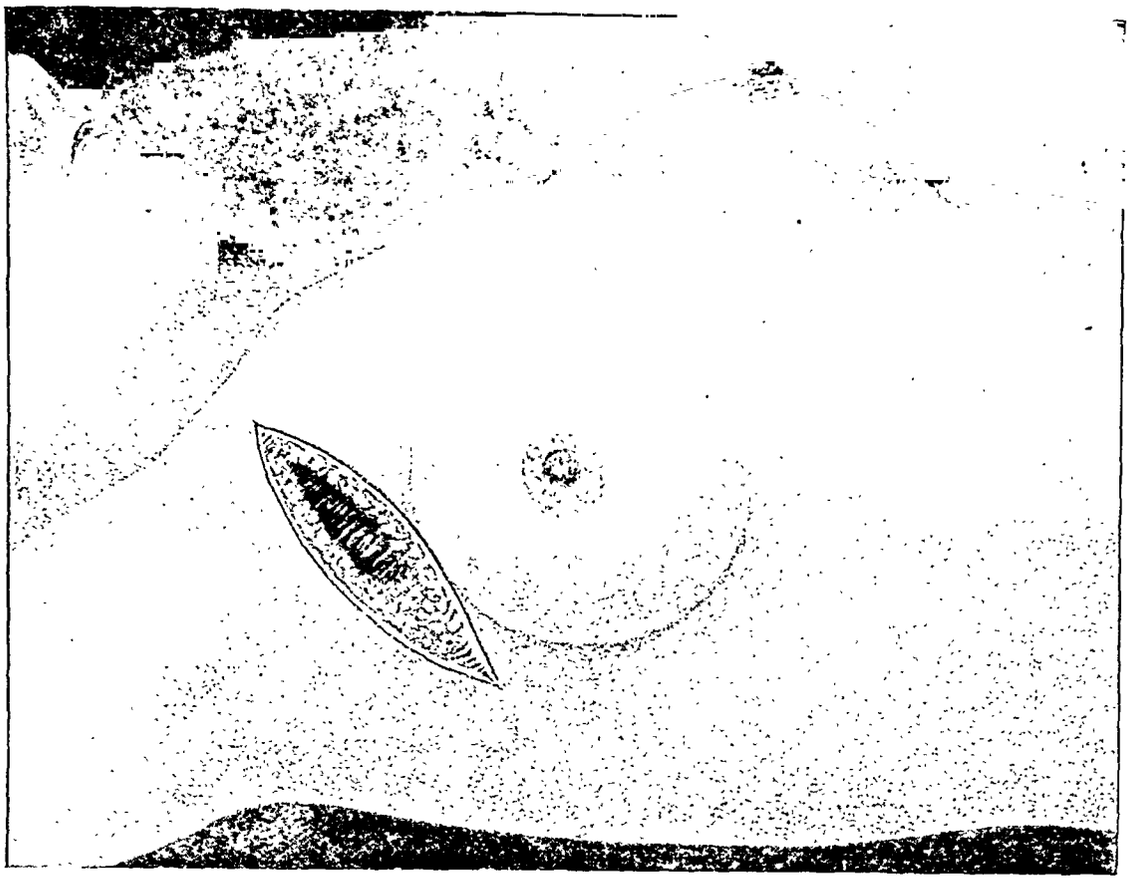

Fig. 6.—Primary skin incision.

cent. passing the three-year limit. This was the best showing, so far as I know, made by any surgeon up to that date.

These results, together with the pronouncement of Meyer and Halsted, in favor of a freer and more anatomic operation, stimulated others to greater endeavor, and, we may say, presaged the greatest advance yet made in breast surgery. At the present time it is not claiming too much to say that at least one-third of the mammary cancers which come to operation should be cured, and that early cases should give a much better prognosis — one-half or two-thirds of the patients making permanent recoveries. If the patient fortunately presents herself for operation before there is either adhesion of the skin, axillary involvement or other complication — in other words, while the disease is strictly local—80 per cent., or four out of five, should be cured.

But, taking cases as they come, early and late, we find that of 210 patients operated on in the Johns Hopkins Hospital, whose cases were traced later, 42.3 per cent. were apparently cured three years or longer.[2] This is the best showing made by any hospital of which I have knowledge, but no better than a number of individual surgeons have done. It is my own belief that we shall more accurately measure the true value of any operation for cancer by taking the smaller series of surgeons who are able to follow their private patients for many years after operation. It is simply impossible to trace accurately a large number of hospital cases. I have long since been made to realize the impossibility of satisfactorily doing so and, therefore, have abandoned the attempt. In the first place, one's private patients are more intelligent, seek advice earlier, submit to operation more readily, and if told that their safety depends on regular visits to the surgeon for at least five years after operation, they will willingly do so.

I have not for many years hesitated to tell patients that they have cancer, and, in my judgment, it is a great mistake not to do so. If the advantages of an early operation and the hazards of delay are fairly placed before patients, they will rarely hesitate. Therefore, it is

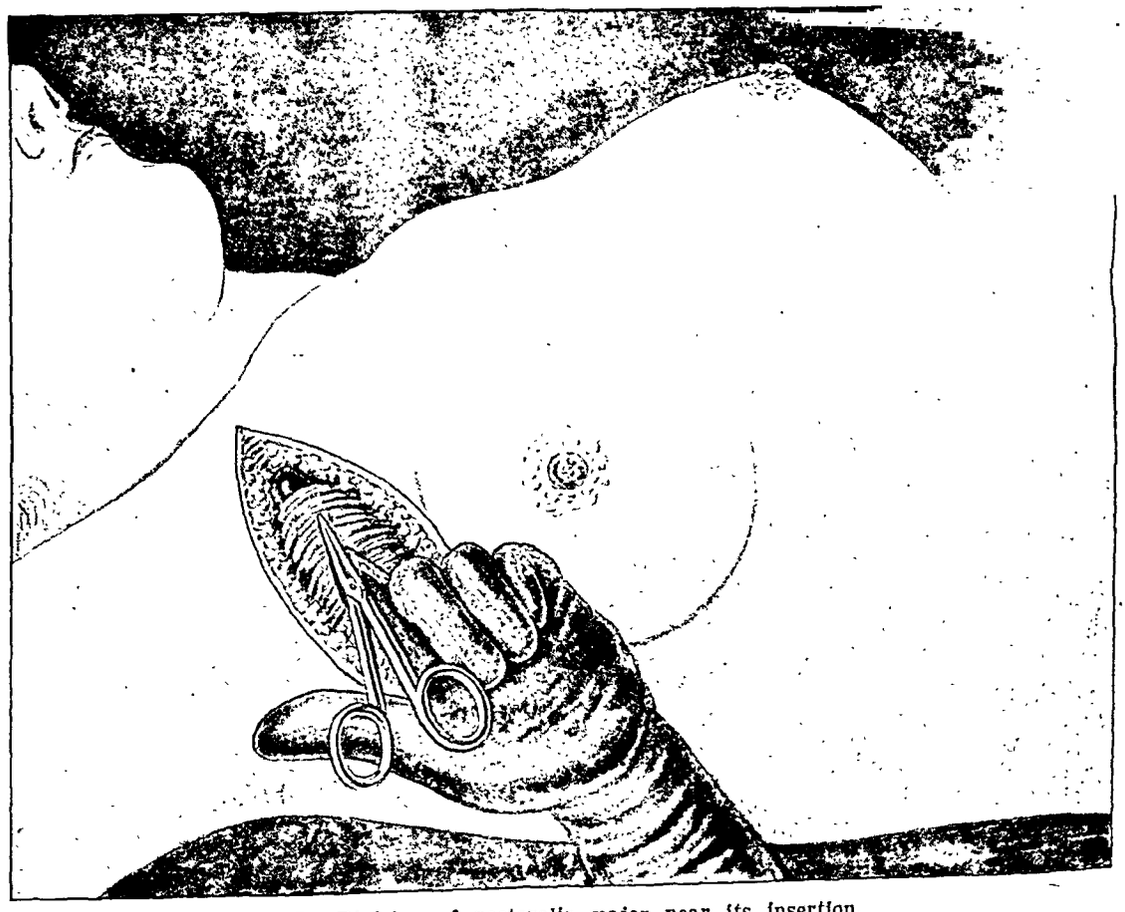

Fig. 7.—Division of pectoralis major near its insertion.

much better and fairer to them to call the disease by a name which all understand and dread rather than to call it a "tumor" or a "malignant growth," the nature of which they do not apprehend. Of course, half-truths are told with the very best and most humane motives, but the whole truth very soon dawns on the unfortunate victims with appalling force, and, mayhap, when it is too late. The truth should be told delicately and with consideration, of course, but it should be told, nevertheless.

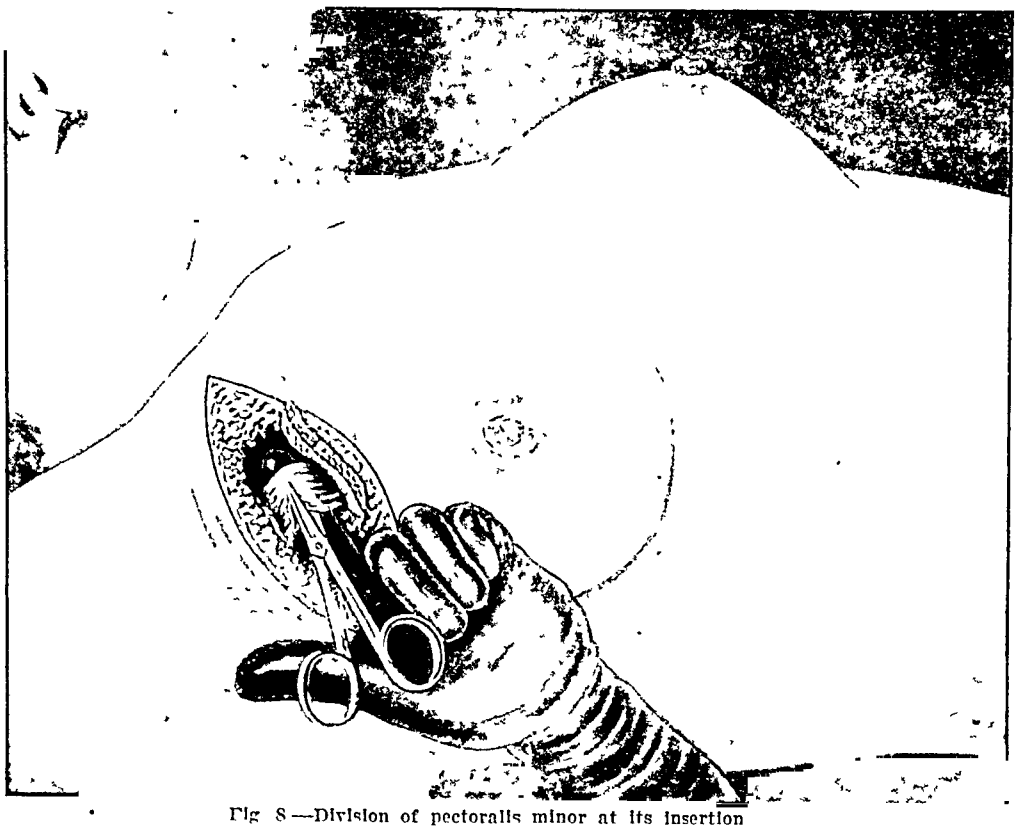

Fig. 8.—Division of pectoralis minor at its insertion

During the ten years from Sept. 1, 1898, to September, 1908, or since my removal to Philadelphia, I have certainly operated on more than a hundred patients with cancer of the breast. Of the ward patients treated in the five hospitals with which I have been connected—I estimate them at fifty or upward—very little is definitely known. Therefore, all are excluded. Of 25 private patients operated on, which includes every patient treated from 1898 to 1905, 7 are dead and 1 is living with recurrence. This patient had, at the time of operation, a very large goiter, rapidly increasing in size, which she declined to have removed. Dr. Fell, of Wilkes-Barre, writes me that the goiter has further increased in volume and that the opposite breast is certainly involved to a pronounced extent. Seventeen, or 68 per cent., are living in good health without local or general evidence of recurrence.

To show that my cases were at least of average severity, two of the patients had been operated on by other surgeons and had suffered recurrences. In one of them I was compelled to resect the axillary vein to the extent of four inches on account of extensive axillary infection. Both of these are dead. In one other case the growth was so advanced that I should very likely have declined to interfere, but for the insistence of the patient's husband, who was a physician. Both he and she declined operation when I first advised it a year before, as they were about starting to California for the winter on account of his health. Two of the 17 recovered patients had adenocarcinoma, 2 had cancerous cysts, 2 medullary, and 11 scirrhous growths. One of the cured patients had both breasts affected.

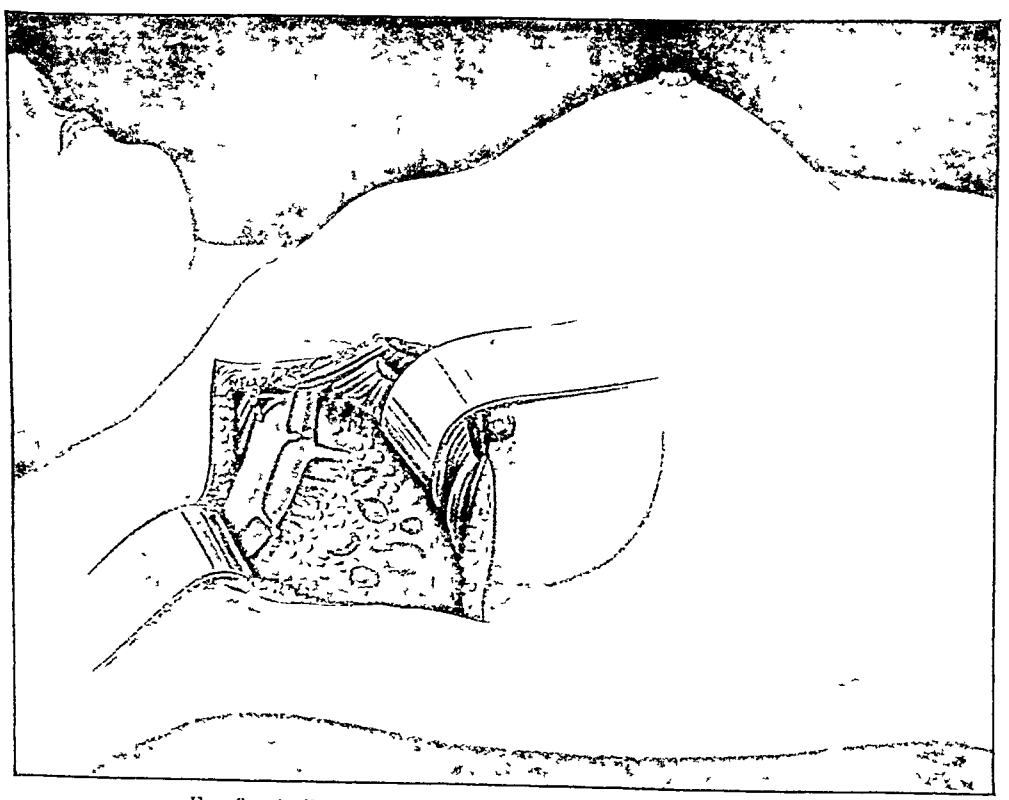

Fig. 9.—Axilla freely exposed and vessels divided at their origin

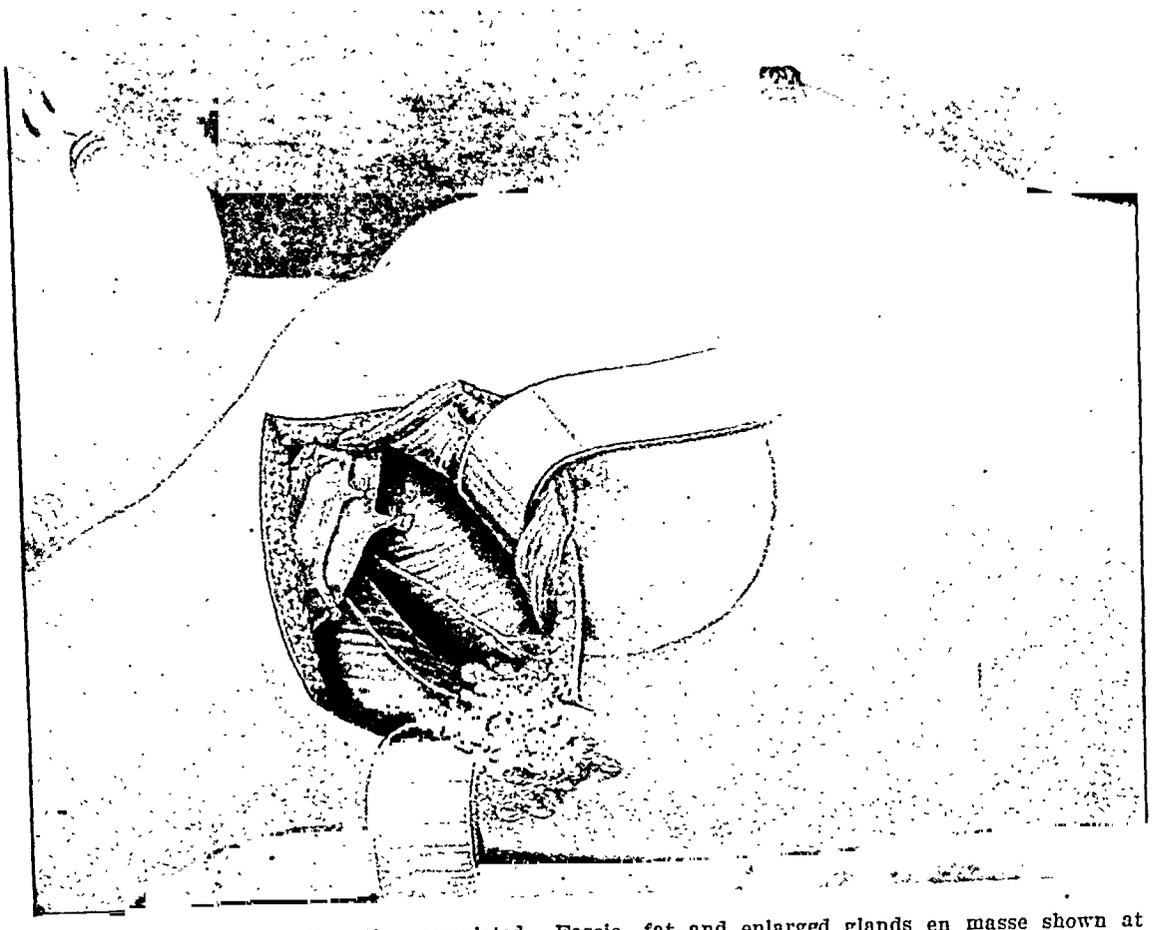

Fig. 10.—Axillary dissection completed. Fascia, fat and enlarged glands en masse shown at base of axilla. External respiratory, or nerve of Bell, shown on the inner wall of the axilla. Subscapular nerve on the posterior wall. Sheath covering all muscles removed.

An interesting and encouraging feature of the series is that two of the cured patients were operated on during pregnancy. Both went to term. Patient 14, whose case was fatal, also had pulmonary tuberculosis. C ncer and tuberculosis rarely coexist, this being the only time I have encountered it. This was a patient of Dr. P. S. Donnellan, now residing in San Diego, Cal.

The patients whose cases are of longest standing were operated on January, 1899, May, 1900, December, 1900, and November, 1902, respectively. All are perfectly well. Figure 4 is from a photograph of the last, on whom a double amputation was done. Skin grafting was done on the right, but not on the left side.

I may add that one patient, a woman, aged 77, with a very bad heart, died suddenly within a week after the operation. As this case has no possible bearing on the subject of ultimate result, it is only mentioned for the reason that I wish to include every private case submitted for operation. Had the patient survived the operation, the chances of a radical cure would have been good, as the growth proved to be adenocarcinoma.

Since 1905 I have operated on a larger number of private cases than in the preceding seven years, and many of the patients have gone long enough to convince me that the end-results will be at least as good if not better than in the series herein reported.

My method of operating has meantime changed somewhat, all the while tending to become more radical. Two years ago I definitely abandoned all flap operations as being at least potentially dangerous. They are alluring and seductive, inasmuch as they often facilitate the closure of a wound otherwise difficult; but that they may do so to the prejudice of an abiding result there can not be the slightest doubt. He who always begins and ends his incision in the same manner for a disease so protean in its manifestations and so widely variant in its local ex-

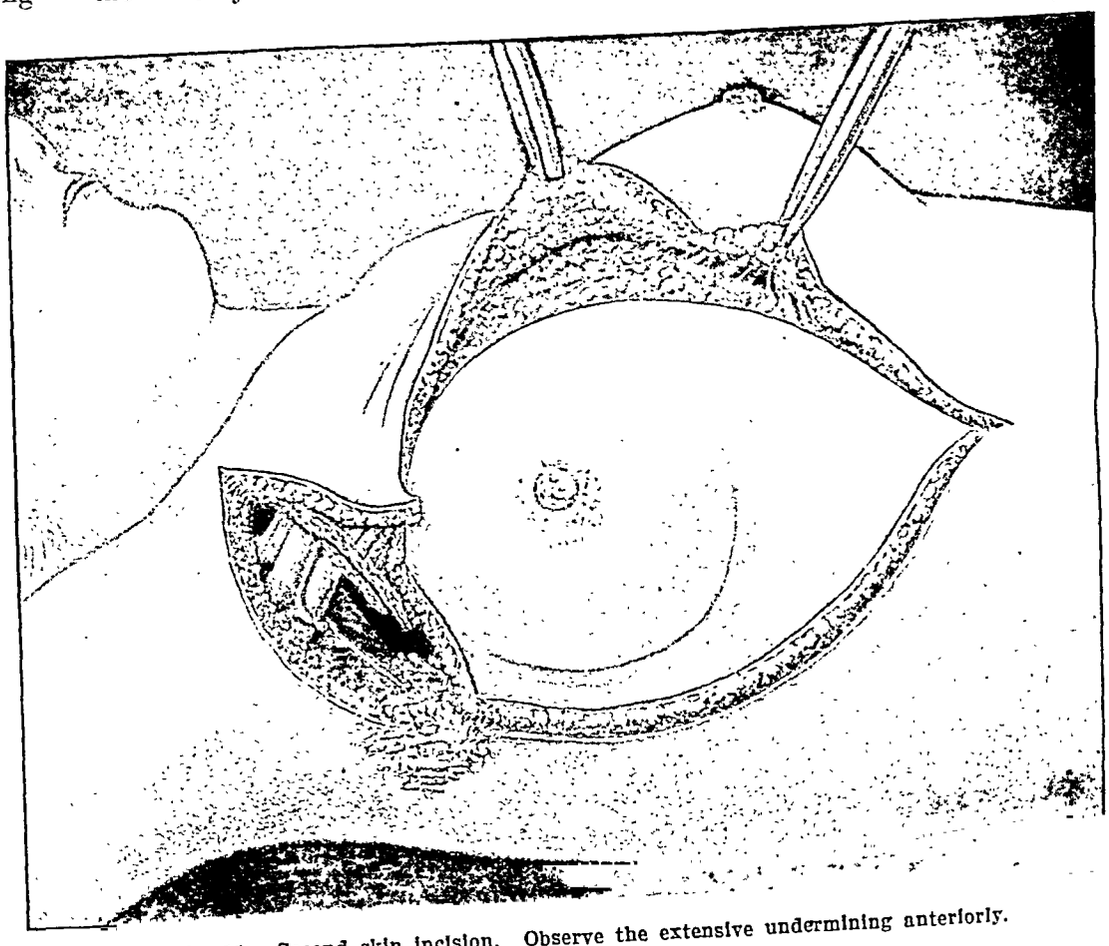

Fig. 11.—Second skin incision. Observe the extensive undermining anteriorly.

pressions will in time necessarily be disappointed and chastened, if not disheartened utterly. If anything has been demonstrated, it is that recurrences generally manifest themselves in the skin, and that its wide removal is the prime consideration, even though the necessarily large wound made must be closed by either undermining or skin grafting.

The operative mortality was less than 1 per cent. in 2,133 operations performed by 25 American surgeons who do a very extensive operation The radical procedure is just as safe as incomplete operations — I believe safer, because it permits accurate work in the axilla. Much of the previous heavy mortality from breast operations resulted from hemorrhage, shock and sepsis, due to wounding the vessels, especially the axillary vein, on account of an attempt to clear out the axilla through an inadequate wound.

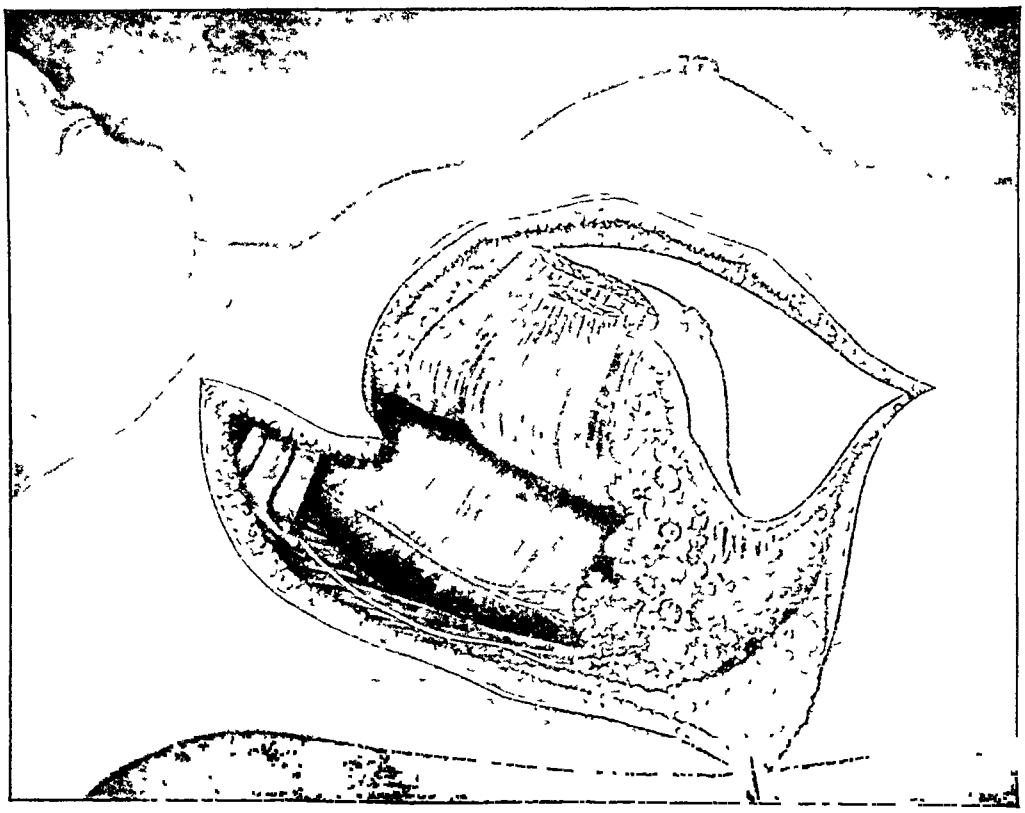

Fig 12—Undermining inferiorly. Muscles, breast and axillary mass being reflected prior to removal.

TREATMENT

There is but one treatment for cancer of the breast—operation—and the earlier and more radical the procedure the better. The chances of a cure in any given case depend almost wholly on the timeliness and manner of operating It should be unnecessary to point out the futility and harmfulness of local applications, caustics, radium and x-rays. All are time-consuming, none of demonstrated value; consequently they should not be used until after operation has failed, or possibly as an adjuvant to it in well-selected cases. Hence, it is necessary only to consider a few of the more prominent and basic principles in the operation for breast cancer A large wound, removal of the pectoral muscles, a thorough axillary dissection *en masse*, are theoretically admitted to be necessary by practically all advanced surgeons. A few who do not remove

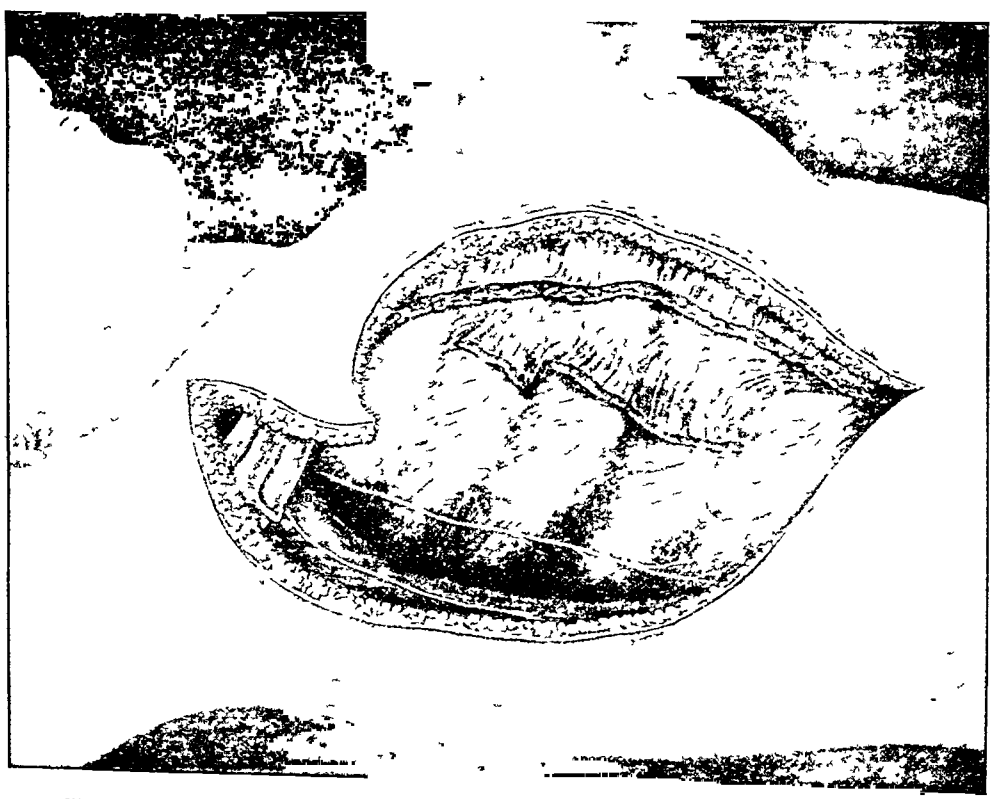

Fig 13—Appearance of the wound after removal of the breast, muscles and axillary mass A small part of the origin of pectoral muscles left as a covering for the ribs This very much facilitates grafting, when necessary, which is rarely the case In fourteen operations during the winter it has been necessary in only two cases.

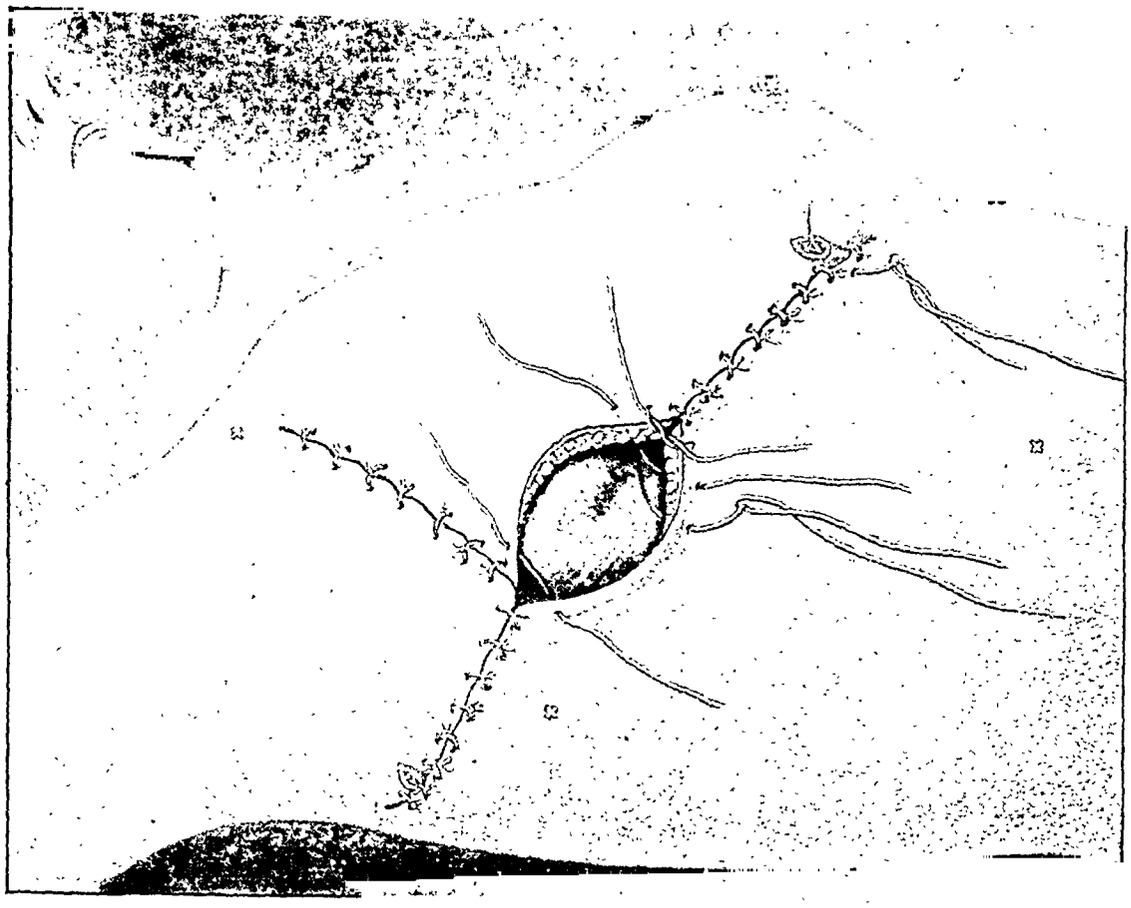

Fig. 14.—Wound being sutured. Middle third of horizontal incision may be, if necessary, covered by skin-grafting. It is rarely necessary. Latterly the drainage tube at either end of horizontal wound is omitted.

the muscles cut across and retract the ends, so as to uncover the axilla, subsequently suturing them. A smaller number, I think, practice removal of the fasciæ covering the subscapular, serratus, latissimus and other muscles exposed in the axillary dissection; and still fewer continue the incision far enough internally and inferiorally to expose the sheath of the rectus in the epigastric triangle. Almost none remove it. The investigations and teachings of Mr. Handley,[10] of London, indicate that carcinoma spreads peripherally by permeation of its epithelial cells along the deep fascial planes; hence the reasonableness of removing fasciæ possibly infected. Mr. Handley also insists—and he has much to support his contention—that abdominal metastases are more frequent than thoracic ones and, instead of the lungs being most often the site of secondary foci, as we formerly believed, the liver in reality is most obnoxious, and that to overcome infection traveling from breast to liver the sheath over the upper part of the rectus should be removed. I was so impressed with his views set forth at Oxford before the British Medical Association in 1904, where we appeared jointly in the discussion of cancer of the breast, that I at once began enlarging my wound internally, making a freer dissection of the epigastric triangle and removing the sheath of the rectus in all cases when the tumor involves the sternal hemisphere, especially its lower quadrant. I have always believed and frequently insisted on it previously that growths involving the inner half of the breast are deadlier than are those of the outer hemisphere. The latter metastasize to the axilla, where it is possible for us to pursue and destroy the enemy; but the former metastasize to the liver, mediastinum, lungs, sternum, ribs or vertebræ—all veritable Gibraltars—defying surgical attack by either assault or siege.

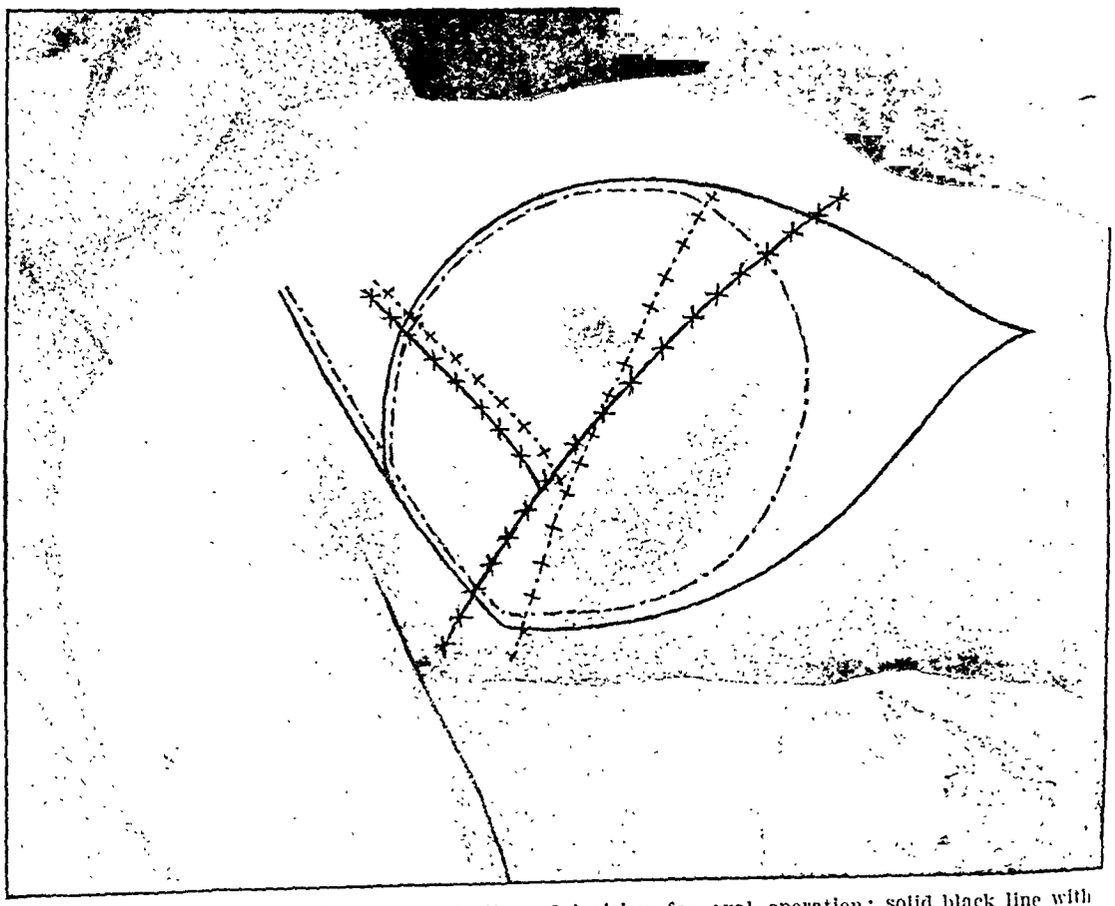

Fig. 15.—Solid black line represents line of incision for oval operation; solid black line with crosses represents suturing after oval operation; broken line represents incision for circular operation, and crossed broken line represents suturing after circular operation.

10. Cancer of the breast and Its Operative Treatment, John Murray, London, 1906.

A vast majority of surgeons so plan their incisions as to work from sternum to axilla, in spite of the inherent dangers incident to such practice, first accentuated, I believe, by A. G. Gerster so long ago as 1885.[11]

In a paper remarkable for its foresight, he used the following words: "The operation should be begun, if possible, with the evacuation of the axillary space and its contents, together with the breast and the intervening tissues, should be removed in one piece." Dr. Gerster informs me that he not only advised, but practiced, this method of operating since 1885, always clearing the axilla, and, so far as he could, ligating the vessels at their origin. He, of course, admits that the later suggestion of Halsted and Meyer (removal of the muscles) greatly facilitates both the axillary dissection and ligation of those vessels high up in the axilla, and was prompt to accept it as necessary for a complete operation.

The advantages of first attacking the axilla are direct and manifest and should be more generally appreciated. They are: First, the axilla may be so hopelessly involved as to make an attempt at removal worse than fruitless. Hence, the sooner it is known the better. Second, the blood vessels can be reached and tied at their origin, which materially lessens both hemorrhage and shock, as the same vessel is not repeatedly cut as is necessarily done in working toward instead of from the axilla. Third, the axillary space is dissected from above downward instead of from below upward, because it is both easier from a surgical and better from a pathologic viewpoint, inasmuch as the dissection is begun beyond the encroachments of the disease. Fourth, we avoid largely, if not wholly, the great danger of expressing and distributing cancer cells to adjacent tissues and remote organs as a result of manipulating the infected mamma and lymph nodes. This is a considerable, not a chimerical danger—so much so that unnecessary handling of the infected tissues should be avoided. Gerster made this clear in his paper,[11] and insisted that it was the chiefest danger to be feared. Fifth, a dissection *en masse* is sometimes made impossible if the work is begun at the sternum, as the heavy mass may pull on and break the axillary tail. It certainly will, if not held by an assistant, during all of which time the infected breast is being manipulated. Sixth, the functional use of the arm will be better, for the reason that in beginning at the axilla instead of ending the incision at this point greater precision is assured. The incision should not extend onto the arm, as the resulting cicatrix in such cases not infrequently restricts the limb in its future movements. This I consider of the greatest importance, as I have more than once seen after the employment of incisions which did either begin or end on the arm a cicatrix which restricted the limb in its upward and backward movements. I have not had the slightest interference with the movements of the arm since confining my incision to the chest. The axilla is reached by a straight incision extending from beneath the clavicle to an inch or less below the tendon of the pectoralis major and at least two finger-breadths internal to the sulcus between arm and chest. This permits perfect access to and work in the axilla.

The several steps of the operation as I now practice it are better shown in Figures 6 to 16 than by a description. Figure 14 shows a drainage-tube at either end of the horizontal incision. I formerly thought this necessary. Latterly I omit drainage.

11. New York Med. Jour., Feb. 28, 1885.

CECOSTOMY AND CONTINUOUS COLOCLYSIS IN GENERAL PERITONITIS AND OTHER CONDITIONS

CHARLES A. L. REED, M.D.
CINCINNATI

A method of treatment that I have been using, for some time, in certain cases of general peritonitis and in some other conditions, is as follows:

1. Recognizing that general peritonitis is always the result of infection, I place the patient in the Trendelenburg position and operate in the usual way to find, and, if possible, to remove the source of infection.

2. Whatever may be the details of that operation, I bring up the cecum and fix it in an incision made directly over its situs, open the loop thus anchored, and in the opening I insert a soft rubber catheter which I fix by a suture to the abdominal wall.

3. I then put a self-retaining effluent tube into the rectum.

4. Through the cecal tube I subject the colon to such treatment and usage as the then existing and subsequently changing conditions may require.

Under this last heading comes, first and foremost, the treatment of patients of general peritonitis, operated on *in extremis*, that is, with a subnormal temperature, uncountable pulse and extreme distention. The first thing accomplished by opening the cecum under such circumstances is, of course, to lessen the distention of the intestines and thus make it possible to deal more effectively with the field of operation. Then immediately after the operation, or, for that matter, before it is completed, I begin continuous irrigation of the colon with normal salt solution at 110 F. About three quarts of solution are retained before the effluent current is established through the rectal tube. By this internal application of heat in direct contact with the solar plexus and by the incidental absorption of water from the colon, a reaction is generally secured with a promptness that seems phenomenal. As soon as this is secured, the free flow from the irrigator is abandoned and the drop-by-drop clysis is substituted and continued for the next twenty-four hours or longer. If the stomach is rebellious, the cecal tube is utilized for feeding the patient. The cecal tube may be retained indefinitely without interfering with convalescence.

This line of treatment is eligible not only in general peritonitis, but in several other conditions. It can be readily adopted as an elective measure, in acute gastric ulcer in which no operation has been done, but in which it is necessary to keep the stomach at rest for a considerable time. It is a capital expedient for feeding purposes following gastroenterostomy and in cases of malignant disease of the stomach or of the upper segment of the intestinal tract, in which operation is not practicable. I have already reported on its utility in certain cases of intraintestinal disease requiring direct medication of the mucosa of the colon.

As a practical expedient this line of treatment has some obvious advantages. In the first place, it is simple and safe. In the next place, its restorative value to the patient—the application of heat, the absorption of fluid and the administration of nutritive and medicinal agents—is beyond question. The complete control thus gained over the colon facilitates the elimination of any toxins that may be lodged in that viscus. Dr. Thomas, pathologist to the Cincinnati Hospital, has made some inter-

esting demonstrations in the cadaver showing that the cecal tube may be utilized for flushing the intestinal tract above the ileocecal valve. Properly predigested food introduced directly into the colon is absorbed much more readily, much more certainly and in much larger quantities than when given by the rectum, and the same fact is true of water, even by the drop method.

I wish in conclusion to urge that cecostomy rather than appendicostomy should always be adopted as the operation of choice. As compared with the presenting part of the cecum, the ceco-appendiceal juncture is an inch or more further away from the abdominal wall The mesocecum is, furthermore, ordinarily so short and is always so inelastic that the appendix can not be drawn and held forward without a degree of tension that is fatal to its integrity. The distensive pressure of any tube inserted and retained in the narrow lumen of the appendix is another influence that causes it always to perish during the first few days after the operation. Thus an appendicostomy always, sooner or later, resolves itself into a cecostomy. It is better, however, to do a cecostomy as an elective operation

The Groton.

THE RELATION OF FOREIGN BODIES IN THE GALL BLADDER TO GALLSTONE DISEASE

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INDIANAPOLIS

Foreign bodies of various kinds have been found occasionally in the gall bladder in association with gallstones. It is probable that the presence of a foreign body in the gall bladder may, under certain conditions, be concerned in the etiology of the stones. The question of whether any foreign body can produce gallstones quite unaided by micro-organisms has been rather conclusively answered in the negative. It is certain that smooth foreign objects may occupy the gall bladder for a long period without retention of precipitated bile salts.

Jaques Meyer introduced small ivory balls into the gall bladders of test animals and found no stones after a year.

Mignot[1] also found that certain foreign bodies, if aseptic, may be retained in the gall bladder for a long time without causing inflammation or precipitation of solids from the bile. Mignot, in his investigations found, also, that foreign bodies impregnated with virulent micro-organisms, singularly enough, did not lead to the formation of gallstones. Such virulently infected foreign bodies produced more or less violent cholecystitis and precipitation of solids but so long as the bacteria retained their virulence they could not, even with the help of the foreign body, form calculi. There resulted a sediment mixed with pus, but the sediment had no tendency to adhere to the foreign bodies. To form stones, he says, the bacteria must be attenuated. Such attenuated bacteria used in his experiments caused precipitation of the bile solids on cotton wool quite promptly, that is, within five or six months.

The above observations concerning the necessity of attenuation proved true of the *Bacillus typhosus*, *Bacillus coli*, staphylococcus, streptococcus and even the non-pathogenic *Bacillus subtilis*. Reports[2] of similar experiments show that if attenuated bacteria and foreign bodies be introduced together into the gall bladder, stones will be formed.

In the absence of direct proof it seems reasonable to presume that much must depend on the character of the foreign body. The smooth ivory balls of Meyer doubtless produced little irritation; whereas a jagged body, if large, must produce decided irritation and if such irritation be alone unable to produce obstructive inflammation of the gall bladder or ducts it is nevertheless easily seen that the essential bacteria may readily be attracted to such a focus for, as Gilbert has demonstrated, bacteria are frequently sent out from the liver with the bile.

The Mayos[3] called attention to the circumstance that the *Bacillus prodigiosus* placed in the anus appeared after two hours in the mouth and that reverse mucous currents in the intestines and ducts will similarly carry up particles of indigo carmine.

It seems not unfair to assume that bacteria may readily pass up the gall ducts from the intestines.

It is well known that entozoa are frequently found associated with gallstones. Such entozoa in their entrance into the gall bladder doubtless furnish at once the foreign bodies and the atria for infection. This is, perhaps true also of the globules of metallic mercury which have been found in gallstones.

That intestinal parasites may find their way into the gall bladder and carry with them the necessary infection is abundantly shown by many reported cases: Lobstein[4] found round worms associated with gallstones; Gautrelet[5] found bilharzia or intestinal flukes in connection with biliary calculi; Carless[6] found pieces of hydatid membrane in the gall bladder and Buisson[7] found the *Distoma hepaticum* in the gall bladder in a case of cholelithiasis. Homans found gallstone incrustations on sutures introduced through the gall bladder wall at a previous operation, here the suture presumably established an atrium. Nauche reported a case in which he found a steel needle forming the nucleus of a gallstone (Mayo Robson).

I have recently observed a similar case in which the incrustations on the needle were slight and easily removed with gauze and the gall bladder was filled with small stones.

In my case adhesions were present between the gall bladder fundus and the pylorus. It seems most likely that the needle passed directly from the pylorus into the gall bladder carrying bacteria with it. This seems also the most rational explanation of the presence of a fruit-seed in the gall bladder in the case reported by Frerichs. If, however, the ova intestinal worms may travel up the ducts with the aid of reversed mucous currents, the seed may have had a similar experience. Doubtless there are other cases in which pointed foreign bodies, owing to the presence of adhesions between the gall bladder and pylorus may be assumed to have passed directly from the latter to the former. Clarus, quoted by Poullet, in his work on foreign bodies, reports a case observed in St. George's Hospital, Leipsic, in which a needle was found very near to the gall bladder in the groove between the left and right lobes of the liver To say that this needle passed out at the pylorus is perhaps not justifiable in view of the amazing journeys which needles have been known to make in the body.

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1. Robson, Mayo: Diseases of the Liver and Gall Bladder.
2. Riforma med., 1901: quoted by Moynihan: Gallstones and Their Surgical Treatment, p 45.
3. Keen's Surgery.
4. Rolleston: Disease of the Liver and Gall Bladder.
5. Union méd., xi, 176
6. King's College Hospital Rep., viii
7. Ueber die Galle, German transl.

The following is a brief report of a case occuring in my practice:

Patient.—Mrs. H. of Walton, Ind., a patient of Dr. Carpenter, was operated on for gallstone disease on March 19. The symptoms which had led the family physician to the diagnosis of gallstones were those which are observed usually in such cases. There had been present gallstone colic, left-sided pains (suggestive of adhesions between the pylorus and the gall bladder) and shoulder pains, followed by nausea and vomiting. There were jaundice and digestive disturbances, muscular rigidity and bile pigment present in the urine as shown by Baudouin's test, also by Loeffler's blue.

Operation.—When the abdomen was opened the gall bladder was found enlarged and adherent and drawn toward the median line of the body lying in immediate relationship with the pylorus. The gall bladder was opened in the usual way. Gallstones were found, and during the removal of these the scoop caught on a mass of what seemed at first to be a very stiff string of organized fibrin occupying the lumen of the organ. On removing this with artery forceps it was seen that the tough fibrin containing bile solids surrounded a stiff, pointed object which later was found to be an ordinary short sewing-needle.

How the needle came into the gall bladder is not known. It is presumed that the woman swallowed it, but this, of course, is only a hypothesis. The woman was accustomed to use needles like that found in her work and had occasionally put such objects into her mouth, as most women do, but does not remember having swallowed a needle. If the needle was swallowed it might easily have found its way into the gall blader in the manner suggested above.

The body of the gall bladder is, as is well known, in relation by its under surface with the first portion of the duodenum, occasionally with the pyloric end of the stomach and the hepatic flexure of the colon. The needle might have traversed the wall of the intestinal canal proper in any one of these three portions and found the wall of the gall bladder in immediate apposition with the canal, which it had just left. It does not seem at all likely that the needle backed up stream, so to speak through the ampulla of Vater, the common and the cystic ducts. To any one familiar with the causation of gallstones, the probable relationship of the presence of the needle to the stones will be clear. It is quite fair to assume that such a foreign body as the needle, having carried in infection, could provoke sufficient inflammation of the gall bladder and ducts with consequent obstruction as to lead to precipitation of the bile salts and gallstone disease. There were no stones in the ducts and the symptoms, as might be expected, have quite disappeared.

331 North Delaware Street.

The Lachrymal Glands at Various Ages.—A. Goz (Inaug. Diss., Tübingen, 1908), has made an exhaustive study of the human lachrymal glands in male and female of various ages. The tissues were fixed in concentrated sublimate or in formalin; paraffin sections stained in iron hematoxylin and Delafield's hematoxylin and benzopurpurin B. Age bears a direct relation to the size and structure of the glands. The largest were found in women of about middle age. The size of the glandular epithelium decreases after the first year, producing a widening of the glandular lumen. In advanced age there is an increase of connective tissue and an invasion of the glandular substance. It is not uncommon to find in the aged the glandular tissue thus split up into a number of islets but normally glandular degeneration from this source does not occur. The lachrymal glands of the female have a larger average size and weight than those of the male.

REMOVAL OF AN EMBOLUS FROM THE COMMON ILIAC ARTERY, WITH RE-ESTABLISHMENT OF CIRCULATION IN THE FEMORAL

JOHN B. MURPHY, M.D.
CHICAGO

Patient.—Mrs. H. S., aged 41, was admitted to Mercy Hospital at 1:40 p. m., April 29, 1909.

Family History.—Father alive, well, aged 77; mother died at 42 of pulmonary tuberculosis.

Personal History.—The patient was born in Germany and came to Chicago twenty-five years ago; married at the age of 26; habits good; used no alcoholic liquors. Menstruation began at 14 and was until one year previous of the regular twenty-eight-day type; lasted four days; quantity moderate. In the last year the patient had had seventeen periods; flow scanty; last menstruation March 8, 1909; diminished in quantity. She had one child 9 years old; forceps delivery; was confined to bed five weeks; had cholecystic infection in the puerperium and was jaundiced for three months.

Previous Illness.—The patient always had good health up to about five years before the present illness, at which time she had acute rheumatism which lasted four weeks; she had a second attack two years later. The patient was not confined to bed in either of the illnesses and did not know that the endocardium or valves were involved. Following this attack she had shortness of breath and consulted a physician who said she had heart trouble.

Present Illness.—On April 25, 1909, the patient was seized with a sharp pain in the lower part of the left side of the chest and upper abdomen, which later extended down to the pelvis. It was considered pleuritis and the patient was given opiates. The pain continued in the lower part of the abdomen after that in the upper part had entirely disappeared, which would rather controvert the idea of a splenic infarct. On April 26, between 9 and 11 a. m., the patient became nauseated and vomited five or six times; did not have a chill and did not believe she had an elevation of temperature. One hour later both the left and right legs began to pain. A physician was called, and he gave a hypodermic injection in the left leg in the region of the pain. Both legs became cold and remained so until the following morning, when the pain in the right leg ceased and it regained its normal temperature. The left leg remained cold, was blue in the thigh and very pale and shriveled in the toes, foot and ankle. It was cold to midway between Poupart's ligament and the patella. There were large blue blebs scattered over the middle third of the thigh.

Examination.—At the time of admission to the hospital the pulse was 82, respiration 26, temperature not recorded. After the operation pulse was 76, temperature 98, respiration 26. At 4 p. m., April 30, pulse 84, temperature 98.6, respiration 28. May 1, at 4 p. m., pulse 82, temperature 99.2, respiration 26. A careful examination on admission showed that the patient had a mitral, direct and regurgitant murmur. Examination of blood showed 15,400 leucocytes; hemoglobin, 85 per cent. There was no pulsation in her left femoral artery. The upper margin of the area of demarcation that appeared then was about four inches below Poupart's ligament. The limb was undergoing dry gangrene, due to ischemia from arterial obstruction. The patient was immediately taken to the operating room and it was decided to remove the embolus that was occluding the iliac artery.

Operation.—(2:30 p. m., April 29.) The patient was placed on the table with the hip slightly elevated. Nitrous oxid was given for thirty seconds, while an incision four inches long was made downward from an inch above Poupart's ligament parallel to the femoral artery. It extended through the skin and connective tissue. The anesthesia was then stopped, the dissection continued and the femoral artery was exposed for a distance of 2½ inches. It was edematous, easily freed from neighboring structures and two provisional catgut ligatures were thrown around it with an aneurism needle but were not tied. These were used in

preference to the Crile clamp so as to aid in elevating the artery, which was then incised for one inch parallel to its long axis. It was completely thrombosed. With a delicate forceps the clot (a bifurcated plug an inch and a half long) was drawn from below upward, when fresh arterial blood came from below, evidently collateral, through the femoral profundus. A finger was then placed on the lower end of the vessel inside the ligature loop, as shown in the illustration, so as to compress it and stop the return blood and still not injure the intima. With a delicate forceps I began extracting the clot from the proximal side; the artery did not empty. A delicate spoon was then introduced and more clot withdrawn, but no arterial blood came. Then a No. 6 soft catheter was introduced; it passed up a distance of seven and a half inches and was withdrawn filled with grumous, bloody débris, but no arterial blood followed. It was reintroduced but could not be forced through

Location of the clot and direction taken by the sound shown semi schematically.

a resistant body at that point. An ureteral catheter was then inserted; it met resistance at the same distance as before, but was forced through the thrombus and passed up nineteen inches, thus catheterizing the abdominal aorta. A small quantity of arterial blood followed its withdrawal. A uterine sound was then introduced. At a distance of seven and one-half inches it met resistance. It was forced a half inch further, and on its withdrawal a large quantity of grumous, thrombotic débris came, but no arterial blood. It was pushed a little farther on and met a firm resistance. No blood followed its withdrawal. It was introduced for a third time, and with a little additional force at eight and one-half inches it seemed to pass through into a free space. This was followed by an intense arterial flow, carrying with it a lot of embolic débris and fresh, bright blood. The arterial flow had then all the pressure and quantity of a normal femoral artery. The finger was then inserted in the ligature loop on the proximal side to stop the bleeding. With a fine silk suture on a full curved conjunctival needle a rapid continuous suture of the linear incision in the artery was made. On removing the digital pressure it oozed a little between the second and third stitches. Two additional supporting stitches at this point completely controlled the hemorrhage, and pulsation could be felt throughout the vessel. Unfortunately this operation was four days after the embolus was arrested in the common iliac just below the bifurcation of the aorta. The skin was necrotic and the limb cold to eight inches above the knee.

Postoperative History.—After the patient was removed to her bed she complained of pain and burning in her toes and ankle, the first sensation she had had in any of those parts since the onset. Considering the ease with which this clot was removed from the second inch of the common iliac artery, it is very much to be regretted that operation was not performed early in this case and in all of these cases. The operation was done without an anesthetic practically, and can be done painlessly with a little cocain or salt solution injected into the skin. The collateral circulation was evidently making a great effort to establish itself, for as soon as I removed the plug from the junction of the deep and superficial femorals in the lower portion of Scarpa's triangle, the blood returned from the distal side. The suture of an incision in an artery is as simple as the suture of an intestine, if a sufficiently small needle be used. This I demonstrated in 1896, at which time I made the first successful end-to-end union of an artery that had ever been made, excising half an inch of the femoral artery at about the same point where I incised it to-day. At the line of demarcation the circulation was improved immediately after the re-establishment of the flow, becoming well marked a considerable distance lower; the amputation was made four days later four inches below the line of bleb formation that existed at the time the embolus was removed, and the flap survived. The circulation in all the smaller vessels at the line of amputation was fairly well established, but the trunk of the femoral was occluded by a loose, non-adherent clot, showing that it was the result of the suppression of the circulation from below or backing up of the blood which caused the thrombus, and not an inflammatory condition.

In cases of aseptic embolism immediate removal by division of the artery at the line of the embolism or below it should be resorted to. These emboli produce mere mechanical obstruction and the circulation is at once re-established by their removal.

The symptoms which indicate the occlusion of a large artery are, first, pain; second, ischemia of the limb; third, cooling of the surface; fourth, absence of pulsation in the arterial trunk. The number of hours that may elapse before a tissue becomes incapable of restoration has not been definitely determined, but from the length of time a constrictor may be kept on a limb for the suppression of hemorrhage and the vitality of the limb restored, we know that many hours of complete suppression of the circulation is not incompatible with restoration of the life of the tissues.

Since 1896 I have had two additional end-to-end sutures of arteries, one of the femoral in Scarpa's triangle for a bullet wound, and another of the first portion of the axillary just below the clavicle. In both end-to-end union was effected by my suture method and the circulation in the extremity promptly restored. A little over five years later all three of these end-to-end unions were examined by Dr. Neff and the circulation in the extremities was found perfect. I have also had a lateral suture of the external iliac and axillary arteries with good results. In September, 1908, a successful end-to-end anastomosis was made of the femoral artery into the femoral vein for endarteritis obliterans.

Since I published my original experiments and results in this line and demonstrated the feasibility of this work, Payr, Hoeffner, Exner, Ullman, Carrel, Guthrie and others have supported the practicability of arterial suture and demonstrated that extremities and organs can be transplanted and the circulation maintained, if accurate suture of the arterial and venous trunks is made. The transplantation of organs must adapt itself best to embryologic ectodermic and endodermic glands, as their function is essentially a cellular one and not materially dependent on nerve supply, just as in horticulture the product of the graft depends on the "epithelial" cells in the bud, and these are maintained through nutrition derived from the engrafted trunk, the "epithelial" cell producing its normal or physiologic product.

In the removal of septic infarcts there is little to be gained in a practical way, as they are usually multiple. With the infarcts resulting from acute or chronic vegetations on the cardiac valves, good results should be obtained. Even cerebral ischemia should be amenable to this treatment, when due to an embolus arrested in the common or internal carotid by opening the common carotid and aspirating through a catheter; or a subclavian clot by incision of the axillary artery.

I believe that aspiration through a catheter is a better means of removing the plug than the one which I adopted. If the catheter is divided on the slant with its end open it can be readily introduced into the artery; unless the embolus is extremely hard it can with suction be drawn into or fragmented by the catheter and thus the artery freed.

Incision into the artery at the seat of arrest of the embolus, if it has been there for any length of time, is not an advisable procedure, as I found in my experiments that when a thrombus rested any considerable time on the intima it roughened it and increased its tendency to subsequent thrombosis. Therefore, the artery had better be divided above or below (preferably the latter) the point of impaction of the embolus. A gradual occlusion of the circulation does not produce gangrene in the extremity. In the British Museum are specimens showing that in gradual occlusion of the thoracic and abdominal aorta by cicatricial masses an abundant collateral circulation was developed sufficient to compensate for the occluded artery. It is the sudden ischemia that causes the gangrene.

The curved needle of the conjunctival type, which has its cutting edge easily rubbed off on a whetstone, is a good type of needle for deep work. A straight needle is difficult of insertion, and an "extremely fine needle" is not a *sine qua non* to arterial suture. After the removal of the Crile clamp or the digital compression there is often considerable oozing through the stitch holes. A gauze compression for thirty or forty seconds will completely stop all this bleeding. Silk should be used and not animal suture, as a clot rapidly forms around the silk, plugging the stitch hole.

The diagnosis of embolism of the mesenteric artery has never been made early enough to have this procedure available as a life-saving measure, but let us hope. Here, as in other types of emergency surgery, the operation must be timely in order to be successful. This applies particularly to the cerebral ischemias. The removal of an embolus from the pulmonary artery by Trendelenburg, while it terminated fatally, deserves special mention.

100 State Street.

Clinical Notes

FAVUS TREATED BY BACTERIAL INOCULATIONS

PRELIMINARY REPORT OF A CASE

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MOUNT CLEMENS, MICH.

This case of tinia favosa is perhaps particularly interesting, because, so far as my knowledge goes, there is no case of favus on record in which the opsonic treatment has been used.

Patient.—When the patient first came to my office, which was about Oct 3, 1908, he presented a classical picture of the disease. The eruption, which is shown in Figures 1 and 2, was very extensive. The lower extremities were affected in the same proportions, particularly below the knees. The nails on both fingers and toes were also involved, which gave the patient continual annoyance. The characteristic "mouse" odor was evident. The patient's general condition appeared about normal. For twenty-three years he had suffered continually without any relief, except for very short periods of slight improvements during the first three years of the disease.

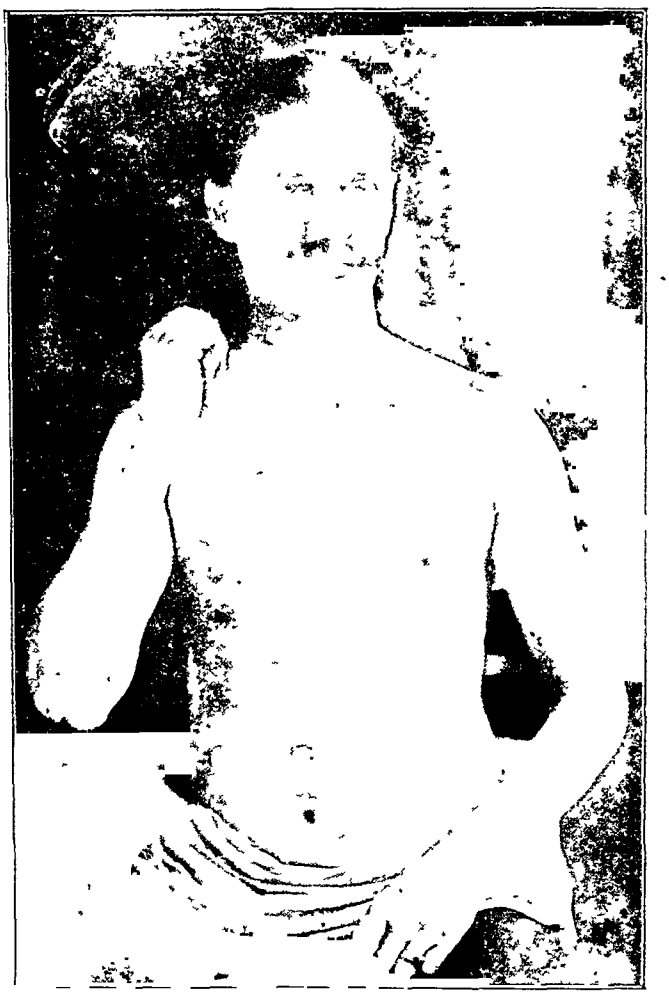


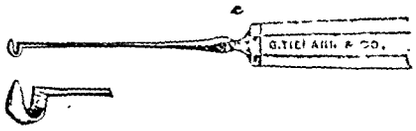
Fig 1—Patient with tinia favosa, from photograph taken before beginning of treatment

Examination—Microscopic examination of the scales revealed the presence of the *Achorion schonleinii*. It was decided to isolate the specific fungus of this disease and prepare a bacterial vaccine from it. A culture from the scales planted on agar and grown in the incubator for seventy-two hours gave the characteristic culture, microscopic examination of which revealed a mixed culture of the *Achorian schonleinii* and *Staphylococcus aureus*.

A CORNEAL CURETTE

JOHN M. WHEELER, M.D.
NEW YORK

The instrument shown in the accompanying illustration may be used for curetting the cornea in any condition in which curetting is indicated, but its chief field of usefulness is in the removal of foreign bodies. Both edges are ground sharp, and the end of the instrument is ground to a point which projects a little beyond the shank. The construction of the curette is such that in its use the field of operation is not hidden from the surgeon. Most foreign bodies can be removed from the cornea without difficulty with the cutting edge of the instrument, and the foreign bodies almost invariably



stay on the curette. Occasionally a small bit of emery or like material penetrates the cornea to such a depth that the use of a sharp-pointed instrument is indicated. For this reason a point is supplied on the curette, and in using this point the shank of the instrument acts as a guard, so that there is no danger of perforating the cornea in removing foreign particles.

On account of its safety this little instrument will appeal especially to the general practitioner who of necessity must often remove foreign bodies from the eye.

64 West Fortieth Street.

Therapeutics

CHRONIC BRONCHITIS

Forchheimer, of Cincinnati, thoroughly discusses this troublesome disease in the *American Journal of the Medical Sciences,* February, 1909. He believes that the patient who has marked exacerbations in cold weather or has a prolonged winter cough should, if possible, go to a warmer climate during the cold season. This is especially advisable in cases in which there is an intermittence of the bronchial catarrh during the warm seasons, because many times chronic bronchitis begins as a recurrent winter cough which persists, until finally, it becomes an all-the-year cough. Like all recurrent inflammations and neuroses, the more frequently it occurs or the longer that it has lasted, the more persistent is the condition, consequently, every effort should be made to prevent a prolonged winter cough.

Of course, the most frequent cause of such a recurrent cough is latent or more or less active tuberculosis, but chronic bronchitis without tuberculosis while not of common, is certainly not of infrequent occurrence. If there is any season of the year that is worse for such patients than any other, it is the windy, dusty period of early spring, when there is but little, if any snow in the Northern and Eastern United States, and when it is a little too cold to sprinkle the streets properly, or the city authorities are careless in not beginning the sprinkling of the streets early in the season. Dust is certainly an exciting cause of the bronchitis, and also such dust carries with it germs which easily produce infection, when deposited on mucous membranes that are so unhealthy as are the bronchial mucous membranes of these patients. Also, most of these patients become more or less debilitated by the cough and expectoration, and are susceptible to other infections, especially of the upper air passages.

It is too often forgotten in the treatment of chronic bronchitis that though the cough and expectoration is the most important symptoms and the one for which the patient desires treatment, a careful investigation into his general condition, and treatment aimed at his general health will cause more improvement than the administration of expectorants, either sedative or stimulant. Generally, however, some expectorant may be advisable. In this form of bronchitis, opium, or any of its derivatives, is rarely indicated as a sedative, as the cough is usually for the purpose of removing the secretion in the bronchial tubes, and a sedative, or anything that would diminish the irritability of the nerves so that the secretion would accumulate and not be expectorated, would be inadvisable and contraindicated. Also, ipecac, alkalies, and pilocarpin, mentioned by Forchheimer, are rarely indicated in chronic bronchitis. Ammonium chlorid for its stimulant action in causing the mucous membrane to secrete a healthy mucus may for a short time be of advantage, but should not be used too long, as it sooner or later causes nausea and disturbance of the stomach.

In certain cases, some of the aromatic expectorants as turpentine, benzoates, eucalyptol, and santal oil may be of benefit to the patient. Creosote or some of its many preparations may be of value, but most of these drugs, if administered for any length of time, cause indigestion, and, if there is any kidney disability, many of them are contraindicated.

Terpin hydrate is often the best and simplest drug to administer.

If an asthmatic condition be present with the bronchitis, potassium or sodium iodid becomes the best treatment.

Circulatory debility should certainly be treated. Strychnin alone will often do these patients good. Arsenic in small doses is sometimes of advantage.

Forchheimer believes that there is no doubt that some of the aromatic oils, when inhaled from proper inhalers, are of great value.

He also calls attention to the posture treatment when profuse bronchial secretion tends to remain in the bronchial tubes, and would gradually raise, little by little, the foot of the bed of such a patient, until the head is distinctly lower than the feet. He finds by experience that the first elevation of the bed at the bottom should be about two inches; later this may be increased to four or five inches. If there is one particular part of the lung where the secretion accumulates, such a side posture as will facilitate the flow of this secretion toward the larger tubes and thus promote expectoration, may be adjusted by pillows or bolsters.

In fetid bronchitis, creosote, thymol, oil of eucalytus, or oil of pine inhalations are of benefit. Also the administration of creosote and of santal oil internally seems to be of benefit, but the more thoroughly the dilated bronchi are evacuated of their secretions by posture, the less odor will the expectoration have. Also, such patients with fetid bronchitis should, if possible, sojourn for some time in pine woods.

It should not be forgotten that these patients in some instances have combined with the necessary cough an entirely unnecessary one, a cough that raises nothing and is due to throat irritations, often to an enlarged and irritated lingual tonsil. Such a cough can be more or less controlled by the patient, if he is told that it is almost unnecessary, and may also be markedly helped by a few daily local applications of boroglycerid to the lingual tonsil. Soothing alkaline gargles will relieve this kind of a cough, which should not be treated by sweet, irritating, or nauseating expectorants.

Forchheimer well says that the best climate, or the best "cure," to which the bronchitis patient should be sent is determined by the individual condition of that patient. While one patient had best go to New Mexico, another had best take a sea voyage; while one needs circulatory and skin stimulation at some sanatorium or hot springs, another needs exercise and mountain climbing.

As Forchheimer suggests, and as has been pointed out by others, there can be no question that we do not frequently enough teach these bronchitis patients respiratory exercises.

Patients with some arteriosclerosis do well on small doses of iodid, given for long time. Other patients need sufficient daily exercise to cause profuse perspiration.

EPILEPSY

Lest too much reliance be placed on the administration of drugs in this disease, it is well for us to consider the statements made by Dr. William T. Shanahan, assistant physician at the Craig Colony for Epileptics, Sonyea, N. Y. (*The Dietetic and Hygienic Gazette*, March, 1909). He says that the three great essentials in the management of epilepsy are the diet, hygiene, and occupation, and that it is only after these have been arranged to the best possible advantage of the patient that medicinal treatment is to be considered.

To ascertain the best diet for the individual epileptic, the gastric and intestinal digestive powers should be thoroughly investigated, and to do this properly, the twenty-four hours' urine and the feces should be carefully examined. Such examinations, at least if several times done, will disclose many errors in metabolism, which may be prevented by treatment, management, or a radical change in the diet. The digestive system being made as perfect as possible, the toxins that so often are the instigators of epileptic attacks will not form, be absorbed, and circulate in the blood. Not only should the kidneys and intestines be made as nearly as possible perfect excretory organs, but the skin should be made as active as possible by massage and exercise.

Of course all epileptics should avoid alcohol, and often tea and coffee. Rich, greasy, highly seasoned foods, or indiscretions as to amount, should not be allowed to occur in the dietary of an epileptic, and special care should be exercised that the epileptic receives nothing but the freshest and most properly cooked food.

If, in spite of corrections in the diet, intestinal fermentation and putrefaction occur, the various culture preparations of lactic microbes may be administered, or yeast often acts to advantage in preventing such intestinal conditions. Radical changes in diet—from a mixed diet to a vegetable diet, or to a milk diet, or to a temporary buttermilk diet—may aid in eradicating the disturbance in the intestine.

Constipation should certainly never be allowed in epileptics, and drugs may be administered to prevent it, if must be, although of course it is best to prevent constipation by diet, exercise, and by drinking plenty of water. The best laxative, if one must be given, must be determined by the individual patient. If, in spite of ordinary laxative drugs or laxative treatments, the feces tend to remain long in the intestines, active catharsis with calomel or castor oil must be caused periodically. With such persistent constipation the advantage of the administration of sweet oil, and of the high injection into the colon of warmed sweet oil should be remembered.

Shanahan says that for the control of the epileptic seizures, bromin or its salts still hold an important place. He does not state which bromid he prefers, but sodium and potassium are probably the best. If plenty of water is drunk to make the skin and kidneys active, if the bowels move well daily, and if the skin is properly bathed, and good, healthy out-door exercise is taken, the disturbing symptoms of bromism will not develop, especially as the large doses once given have been found unnecessary. If salt (sodium chlorid) is more or less thoroughly removed from the diet, it has been found that the bromin salt, perhaps preferably sodium bromid, takes its place, and less bromid is needed to control the frequency of the epileptic seizures. Shanahan cautions not to stop suddenly the administration of large doses of bromids.

He also states that if the excretory organs of the patient are kept active, the condition of status epilepticus, or rapidly repeated seizures of epilepsy, will not occur; hence the prophylactic treatment is the best. Such a condition, however, being present, he says that chloral hydrate must be used; it is best given by enema and its retention may be aided by laudanum. He does not say how much is generally needed, but states that it should be used with caution, and exhaustion guarded against by the use of stimulants such as aromatic spirits of ammonia, and enemata of strong black coffee, at a temperature of from 100 to 105 F. If needed, he would also give physiologic saline solution intravenously or by hypodermoclysis, and if there is much cardiac depression he uses strychnin, digitalis, and strophanthus.

At the onset of the status epilepticus, gastric and intestinal lavage are often of value. Venesection may be used in plethoric cases, and lumbar puncture has been tried, but with only questionable success. If the epileptic seizures are rapid and severe, chloroform inhalations may be administered until the chloral has had time to absorb from the rectal or colon injection.

Of course in treating any individual epileptic, an attempt should be made to correct any physical disability that may be present. Adenoids and enlarged tonsils should be removed; decayed teeth should be cared for; eyes should be fitted with glasses, if they require it; hemorrhoids should be removed, if present; pelvic disturbances in females must be prevented, medicinally, if may be, or operatively if must be.

Shanahan does not speak of the disturbances of menstruation being a frequent cause of epilepsy in girls and women, nor of the advantage of the administration of thyroid both as an emmenagogue and as a preventive of nitrogen poisoning. It is a fact that many female epileptics may be greatly improved and even cured with general management and the proper administration of thyroid.

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[For other information see second page following reading matter]

SATURDAY, MAY 22, 1909

AORTITIS, AORTIC ENDOCARDITIS AND SYPHILIS

With the development of two new diagnostic criteria of syphilis, the Wassermann reaction and the finding of spirochetes, it has been possible to approach the so-called parasyphilitic diseases from a new ground, with the result of brilliantly confirming the conclusions previously reached by clinical observation. As the parasyphilitic affections are late manifestations or results of syphilitic infection, and for the most part not accompanied by definite syphilitic lesions, the search for spirochetes has not been of much help in their etiologic determination, since these organisms are usually found with difficulty in even the most typical lesions of the tertiary stage. With the help of the Wassermann reaction, however, it has been demonstrated that the relationship between syphilis and such diseases as tabes and general paralysis is fully as frequent as the clinicians have long believed, and if anything more so. The variations in the results obtained by the laboratory investigators who have applied the serum test to these diseases, are about the same as we have been accustomed to see reported by clinicians who were endeavoring to establish a relationship on the basis of clinical history and coexisting syphilitic manifestations.

Among the parasyphilitic lesions degenerative and productive changes in the aorta, with resulting aneurism or aortic insufficiency, have long presented problems to the pathologist and clinician of great practical as well as theoretic interest. Even Ambroise Paré, Morgagni and other early masters of medicine recognized that syphilis played an important rôle in the etiology of arterial diseases, but we owe especially to the work done under Heller at Kiel our present understanding of the characteristic features of aortic syphilis. Now it is generally recognized that fleshy nodular thickenings of the aorta, most abundant in the ascending part, and frequently extending to the aortic valves with resulting incompetence, are commonly of syphilitic origin, especially when they concern individuals in the prime of life. Microscopically, these lesions are found to involve chiefly the media and adventitia, consisting of foci of round cells in the vicinity of the vasa vasorum, while in the media may be found foci of necrosis which sometimes are typically gummatous in character. As a rule, the histologic features of these lesions are not such as to prove conclusively their syphilitic origin, and consequently the pathologists have discussed at much length the proportion of such aortic lesions that should be ascribed to syphilis, and the possibility of similar lesions being produced by the acute infectious diseases. It seems to be generally accepted, however, that the most usual cause of such changes in the aorta is syphilis, although it is possible and probable that they are not by any means specific evidence of syphilitic infection. In other words, their status is just about the same as that of tabes and paresis in respect to etiology. Mönckeberg found that of the reported cases of aortitis 33 per cent. showed positive evidences of syphilis, while in a further 44 per cent. other parasyphilitic affections coexisted. Chiari reported that of 27 cases of undoubted syphilis examined post-mortem aortitis was present in 16, and of 44 paralytics 21 showed aortitis, indicating that more than one-half of all syphilitics coming to autopsy show characteristic lesions in the aorta. Similar results have been obtained by clinical observation. In v. Strümpell's clinic of 24 cases, tabes and aortic lesions, chiefly aortic insufficiency, coexisted in 15.

For some reason the application of the serum test to aortic disease has lagged behind its use in the study of nervous cases, but the results that have now been obtained are fully as convincing, and perhaps even more valuable from the therapeutic point of view than the results in tabes and paralysis. Fränkel and Much first applied the Wassermann test to the blood from cadavers showing aortitis with aortic insufficiency, and in all the six cases examined the reaction was positive. Citron[1] has studied systematically, by the serologic method, with interesting results, all the cases of aortic insufficiency coming to Kraus' clinic in Berlin in the past year and a half. Although only 14 per cent. of all cases of uncomplicated aortic insufficiency gave definite, and a further 26 per cent. suggestive, clinical evidence of syphilis, yet no less than 62.6 per cent. gave a positive serum reaction.

The earlier attempts to locate spirochetes in the aortic lesions resulted for the most part negatively, so that the positive findings reported by Schmorl, Reuter and Benda were accepted with more or less skepticism in view of the possibilities for error that the degenerated aortic tissues offer to the searcher for spirochetes. However, now that Wright and Richardson[2] have reported the finding of structures morphologically identical with *Spirochæta pallida* in all of five cases of aortitis examined by them, there will be no hesitation in the acceptance of these positive findings by Americans who are familiar with the splendid technic of the Boston laboratory.

All the above findings taken together would seem to prove finally the importance of syphilis in the etiology of the nodular form of aortitis which is so frequently

1. Berl. klin. Wchnschr., 1908, xlv, 2142.
2. Boston Med. and Surg. Jour., 1909, clx, 539.

associated with insufficiency of the aortic valves. Indeed there seem to be relatively few cases of simple aortic insufficiency that are not due to syphilis, especially if we exclude those cases where there is a history of rheumatism. As the Wassermann test seems to have distinct value in indicating the activity of syphilitic lesions, there would seem to be an excellent opportunity for therapeutic advance in the treatment of aortic regurgitation when of syphilitic origin, as most of the uncomplicated cases are shown to be.

RELATION OF HUMAN AND BOVINE TUBERCULOSIS

We are approaching the end of the solution of a problem which for many years has been the subject of bitter controversy and during the past eighteen years has been the object of perhaps more extensive work than any other in medicine. The relation of human and bovine tuberculosis is a question of first importance and deserving the most careful consideration.

The investigations which have led up to the proof of he intercommunicability of the disease in man and cattle may be divided into three periods: first, those taking place before the publication, in 1882, of the discovery of the tubercle bacillus by Koch; second, those occurring between the time of the discovery of the tubercle bacillus and its differentiation into human and bovine types by Theobald Smith in 1896-1898; third, those occurring since the establishment of these two types.

During the first period, it was shown by direct experiment that cattle could, though with difficulty, be infected with tuberculous material of human origin; their resistance to the human virus is so great, however, that it is unlikely that the infection occurs naturally.

Evidence of infection from tuberculous cattle to man could not, of course, be sought experimentally, but numerous observers collected statistics which furnish much circumstantial evidence that not infrequently man is infected with the virus of bovine tuberculosis. Numerous cases were studied in which, among children especially, the disease was in all probability caused by consumption of milk from tuberculous cows. A smaller number of cases, but cases furnishing more conclusive proof, were those in which direct inoculation occurred, as in those cases where tuberculous lesions followed wounds received by veterinarians and butchers while handling tuberculous meat.

The evidence obtained during the second period, that is, after the discovery of the tubercle bacillus, differed but little from the preceding, except that the demonstration of the bacilli made the diagnosis more certain, and its cultivation in pure culture gave a greater value to the direct inoculation experiments in animals. This circumstantial evidence was so convincing that it would doubtless have served to bring about the observance of adequate precautionary measures had it not been for the spirit of controversy which existed.

The discovery of the two types of tubercle bacilli, human and bovine, made possible the solution of the problem. On the basis of this distinction the German commission, the British commission and a number of individuals have proved that bovine tuberculosis is communicable to man. In over 300 cases reported in the literature in which the determination of the variety of bacillus present has been made, bacilli of the bovine type have been found in over 60 cases, a little more than 20 per cent. This can not be taken as representing the true incidence of bovine infection in man, since in some of the series investigated cases were chosen in which it seemed especially probable that the infection was of bovine origin. The results indicate clearly, however, that bovine tuberculosis is a source of danger to man sufficiently great to demand rigorous precautionary measures against it.

To arrive at a more accurate knowledge of the incidence of infection with the bovine type of bacillus in man, a great number of cases of tuberculosis, including the various forms of the disease, must be brought under investigation.

It will be of great interest and importance to see if certain forms of tuberculosis are constantly associated with one or the other type of bacillus. It is already evident that the bovine bacillus rarely, if ever, produces pulmonary tuberculosis. On the other hand, it has been found in a considerable number of cases of cervical adenitis and tabes mesenterica, as well as in other forms of tuberculosis.

The bearing which the type of bacillus present in a given infection will have on the therapeutic treatment of the case is not yet clear. In most of the work which has been done on the immunization of cattle against tuberculosis, living but attenuated cultures of tubercle bacilli of the human type have been used; there have been a few experiments, however, which indicate that vaccinations with attenuated cultures of bovine bacilli are more potent to protect cattle than are the vaccinations with the human bacilli. This fact may become significant in the treatment of human tuberculosis. Although at present there is but little to indicate that tuberculins prepared from the two types of the bacilli differ essentially, yet individuals with tuberculosis who had received one kind of tuberculin over a long period of time without evident benefit sometimes show a definite and progressive improvement when a change is made to tuberculin produced by the other type of bacillus.

Whether this result depends on the type of bacillus present in the infection has not been investigated, nor have we enough evidence to say whether we should use the homologous tuberculin or vaccine or the heterologous ones, but in the present unsatisfactory state of the therapy in tuberculosis, advantage should be taken of these points if any advantage lies in them. Further investigations are required along these lines.

THE ANTITOXIN UNIT AS A MEASURE OF CURATIVE VALUE

While most of the active workers in the field of immunization have believed that the curative value of a serum could be accurately gauged by the number of antitoxin units it contained, there have not been lacking some dissenting voices. As is well known, the content of a serum in diphtheria antitoxin units is determined, as a rule, by mixing measured quantities of the serum with a standard toxin and injecting the mixture, under carefully controlled and uniform conditions, into a guinea-pig of 250 grams weight. The degree of protection afforded by a given serum under this procedure is generally considered to indicate its relative value for curing diphtheria in man. That is to say, if 10 c.c. of 200-unit serum proves efficacious in curing a patient, just one-half the amount, or 5 c.c. of a 400-unit serum should prove equally efficacious.

Roux, Cruveilhier and others were among the first to report findings at variance with this conclusion. According to these observers, the dose of diphtheria antitoxin which has the greatest therapeutic effect is not always the one that contains the greatest number of antitoxic units. If this be true, the inference would seem to be justified that the antitoxin is not the only important preventive and curative substance in the serum. Steinhardt and Banzhaf,[1] on the other hand, after a careful repetition of Cruveilhier's experiments, arrived at diametrically opposite results. They found no evidence that the therapeutic power of a serum was dependent on anything except the number of antitoxin units it contained, and they conclude that the present method of standardizing antidiphtheritic serum accurately measures its therapeutic value.

The question has also been investigated more recently by Kraus[2] of Vienna, who has obtained results similar to those of Roux and Cruveilhier. Kraus studied not only antidiphtheritic serum, but also antidysenteric serum and the antitoxic cholera serum (*el Tor vibrio*). With all of these he found that no fixed relation existed between the amount of antitoxin and the curative value of the antitoxic serums. As a rule, his experiments showed that the "high potency" antidiphtheritic serums (from 300 to 600 units) possessed a relatively lower curative power than those of less antitoxic concentration (from 100 to 150 units). Kraus is inclined to attribute this phenomenon to a difference in the "avidity" of the antitoxin in different serums. In the discussion following Kraus' paper, Kretsz stated that the clinical results with the high potency serums, as he had observed them in a Vienna hospital, were less satisfactory than those with the low potency serums in which, of course, a greater bulk of serum was used. It should be noted that this is contrary to the recorded experience in the New York hospitals and elsewhere in this country.

Part of the discrepancy between the conclusions drawn by Kraus and those of Steinhardt and Banzhaf may be explained by the different modes of experimentation employed by these investigators, but that this is the sole factor concerned in bringing about the divergence seems hardly probable. Kraus expresses his conviction that the problem of measuring the curative value of a serum is not solved and that a re-examination of the whole subject is urgently needed.

1. Jour. Inf. Dis., 1908, 5, p. 203.
2. Centralbl. f. Bakt., Beilage zu Abth. I., 42, 1908.

DISSEMINATION OF FOOT-AND-MOUTH DISEASE BY VACCINE VIRUS

The statement[1] from the Bureau of Animal Industry of the Department of Agriculture in Washington concerning the source of the recent outbreaks of foot-and-mouth disease in Michigan, Pennsylvania and other states is of special interest. A new, hitherto apparently unsuspected source of this disease has been discovered, namely, lymph from vaccine calves. This discovery with its important practical consequences and the whole outcome of the investigation outlined in the statement are highly creditable achievements both to the Bureau of Animal Industry and to the U. S. Public Health and Marine-Hospital Service. The manufacturers in question participated with commendable zeal in carrying out the radical measures instituted by the government in order to rid the market of the unwittingly contaminated vaccine by recalling all the virus on the market.

That the virus of foot-and-mouth disease could exist undiscovered for so long a time in calves used for the production of vaccine virus is not at all incredible in view of the fact that the company from which the original contaminated vaccine came killed its calves so soon as their yield of virus was collected. It was only when the used calves were returned to the market that the infection began to spread.

Discovery of the actual agent of foot-and-mouth disease in contaminated vaccine by any other method than animal experiments is out of the question, because it concerns an agent that is not visible or cultivable by our present methods. Being a filterable virus, that is, passing through filters that hold back ordinary bacteria, it is commonly spoken of as an ultramicroscopic virus. Hence the presence of the virus of foot-and-mouth disease in vaccine lymph can not possibly be detected by the routine methods ordinarily employed to test the purity of vaccine lymph. Under the circumstances it was a matter of good fortune that human beings are relatively but little susceptible to foot-and-mouth disease and apparently not at all when the virus is applied as in vaccination; were it otherwise there surely would have resulted a large number of human cases. As it is, not a single case appears to have developed.

While the cost of this outbreak of foot-and-mouth disease has proved to be no small item, it is a great

1. Miscellany Department in this issue of The Journal.

satisfaction to know that through efficient governmental agencies has the outbreak not only been definitely overcome, but also that such knowledge has been gained as will prevent future outbreaks from this source.

VALUE OF STATE BOARD STATISTICS

We present this week for the sixth consecutive year tabulated statistics based on examinations conducted by state medical licensing boards during the past year. These statistics appear on pages 1691 to 1713 and are worthy of careful study. The four large tables, A, B, C and D, give the results in detail, while the others are presented to bring out the more important deductions.

These statistics, while they should not be taken alone in passing judgment on any medical school, constitute a very important part in the investigation of medical colleges and throw much light on several factors having to do with medical education. In the lists of medical schools shown in Tables I, J and K, with a very few exceptions, the classification is surprisingly upheld by the extended investigation and inspection of medical colleges made by the Council on Medical Education.

Occasionally a college may be listed in Table I, when in justice it should not appear in the better class of colleges. These apparent discrepancies are due to the character of the state board examinations as they are generally conducted and which can frequently be passed by graduates of colleges which give no laboratory or clinical training. Meanwhile, since we began publishing these data six years ago, some colleges have been able to lower their failure percentages considerably by giving special state board quizzes, without in any way improving their equipment for teaching. These methods of cramming for state examinations, however, will probably be corrected through the adoption of practical tests which are already being required by several boards and which will doubtless soon be generally adopted. That state boards are becoming more careful at their examinations is shown by the increasing percentage of failures from 19.1 per cent. for all candidates in 1904 to 21.7 per cent. in 1908 and by the number of colleges having less than 10 per cent. of failures being reduced from 64 in 1907 to 48 this year.

An important fact drawn from Table B is that over 64 per cent. of the graduates of medical colleges become licensed in the states wherein the colleges are located, and the percentage is really higher for colleges of inferior grade. Thus a state is not only responsible for the existence of any low-grade medical schools, but is itself the recipient of the greater part of the poorly trained graduates of those schools, and the standing of the profession as a whole in those states will be correspondingly impaired.

That seven states together registered 213 undergraduates during 1908 is shown by Table M. The number of such candidates registered will be greatly reduced, however, since three of the states, Alabama, Arkansas and Rhode Island, have recently secured legislation demanding that all candidates be graduates of reputable medical colleges We urge that these statistics be given a careful study, especially by those who are interested in the problem of medical education and medical licensure.

Thanks are hereby extended to the various licensing and examining boards for their cooperation in the work of compiling these statistics.

Medical News

ARKANSAS

Commencement Exercises.—The thirtieth annual commencement exercises of the Medical Department of the University of Arkansas, Little Rock, were held April 30, when a class of 22 was graduated. The diplomas were awarded by Governor George W. Donaghey, and the address to the graduates was delivered by Rabbi Louis Witt.——The third annual commencement exercises of the College of Physicians and Surgeons were held in Little Rock, April 29, a class of 14 receiving diplomas. The faculty address was by Dr. C. T. Drennen, Hot Springs.

Personal.—Dr. Claude E. Laws, Fort Smith, has been appointed a member of the State (Eclectic) Medical Board, vice Dr. Jacob F. Lewis, Little Rock, resigned.——Dr. Joshua C. Sexton has been elected president, and Dr. Henry E. Thomason, a trustee of the newly-organized antituberculosis society at Siloam Springs.——Dr. Charle A. Archer, DeQueen, has been elected delegate from the Sevier County Medical Society to the state medical society, and Dr. R. H. Hopkins, DeQueen, and Oliver O. Hammonds, DeQueen, were named as alternates.

Society Elections.—Clark County Medical Society, at its annual meeting in Arkadelphia, April 29, elected Dr. E. Kindle Williams, Arkadelphia, president; Dr. John H. Cuffman, Gurdon, secretary-treasurer, and Dr. James C. Wallace, Arkadelphia, delegate to the state society.——Logan County Medical Society, at its meeting in Paris, April 16, elected Dr. Early E. Scott, Magazine, president; Dr. M. E. Foster, Roseville, vice-president; Dr. John S. Shibley, Paris, secretary-treasurer; Dr. Samuel P. McConnell, Booneville, delegate to the state society, and Dr. Will H. Bennett, Paris, alternate.——At the annual meeting of Polk County Medical Society, held in Mena, April 17, the following officers were elected: Dr. Andrew J. Pool, president; Dr. William C. Vandiver, vice-president; Dr. Frank A. Lee, secretary; Dr. Philip R. Watkins, treasurer, and Drs. William P. Parks, Philip R. Watkins, and Columbus C. Gunnels, censors, all of Mena.——At the annual meeting of Conway Medical Society, held in Morrillton, Dr. Frank Gordon, Morrillton, was elected president; Dr. J. F. Halbrook, Cleveland, vice-president; Dr. George W. Ringgold, Morrillton, secretary-treasurer and delegate to the state society.——Howard County Medical Society, at its annual meeting in Nashville, elected the following officers: Dr. William H. Toland, Mineral Springs, president; Dr. David A. Hutchinson, Nashville, vice-president; Dr. Jesse S. Hopkins, Dierks, secretary; Dr. W. M. Gibson, Nashville, delegate to the state society, and Dr. James M. Daly, Nashville, alternate.——At the annual meeting of Boone County Medical Society, held at Harrison, Dr. R. S. Crebs, Olvey, was elected president; Dr. Alfred M. Hathcock, Harrison, vice-president; Dr. J. L. Sims, Harrison, secretary; Dr. Hugh L. Routh, Batavia, treasurer, and Dr. Frank B. Kirby, Harrison, delegate to the state medical society.——At the annual meeting of Garland County Medical Society, held in Hot Springs, April 7, the following officers were elected; Dr. Morgan F. Mount, president; Dr. Elmer H. Ellsworth, vice-president; Dr. John S. Wood, secretary; Dr. Joseph S. Horner, treasurer; Drs. Eugene C. Hay and Randolph Brunson, delegates to the state society, and T. Earl Sanders and Linda H. Barry, alternates, all of Hot Springs.——Independence County Medical Society, at its annual meeting in Batesville, April 5, elected the following officers: Dr. Charles G. Hinkle, Batesville, president; Dr. William T. P. Huddleston, Sulphur Rock, vice-president; Dr. Oscar J. T. Johnston, Floral, secretary-treasurer and alternate delegate to the state society; and Dr. Robinson C. Dorr, Batesville, delegate.

COLORADO

Personal.—Dr. T. Clarkson Taylor has been appointed health officer of Fort Collins.——Dr. Albert W. Rew has been appointed city physician of Fort Collins, vice Dr. Wilbur O. Upson.——Dr. John R. Espey, Trinidad, is said to have been sustained in his contention that Dr. Alfred Freudenthal has

fessor of medical jurisprudence. The faculty then met and elected the following officers: Dr. Montague J. Lowry, president; Dr. T. Alexander Barber, dean; Dr. Nathan L. Clark, vice-president, and Dr. John R. Tackett, treasurer.

NEW JERSEY

State Society to Meet.—The Medical Society of New Jersey will hold its annual meeting at Cape May, June 23-25.

Society Meetings.—At the annual meeting of Mercer County Medical Society, held in Trenton, May 11, the following officers were elected: President, Dr. Charles H. Mitchell; vice-president, Dr. Gustave A. Schoening; secretary, Dr. Edgar L. West; treasurer, Dr. Iranaeus M. Shepherd; recorder, Dr. Charles J. Craythorn, and delegates to the state medical society, Drs. William S. Lalor, George N. J. Sommers, and Paul L. Cort, all of Trenton.——Salem County Medical Society, at its annual meeting, held in Salem, May 5, elected the following officers: President, Dr. John M. Summerill, Penn Grove; vice-president, Dr. George W. Fitch, Daretown; secretary-treasurer, Dr. Henry Chavanne, Salem; reporter, Dr. John F. Smith, Salem; censors, Drs. William H. James, Pennsville, Frank B. Harris, Canton, and Richard M. Davis, Salem, and delegates to the state medical society, Eugene E. DeGrofft, Woodstown, and Lester H. Hummel, Salem.

NEW YORK

Site for Insane Hospital Again Opposed.—It is announced that the State Commission in Lunacy had chosen a new site for the proposed asylum at Farmington, L. I. With the announcement that an offer for property had been accepted, the same opposition that was raised in connection with the Grenvale purchase is met. The citizens of Farmington in a mass meeting filed a protest with the governor, the senator, assemblymen, and lunacy commission, against the location of a hospital for the insane at or near the village.

Bills Signed.—Governor Hughes has signed the following bills: Senator Platt's, providing that any person knowingly bringing a domestic animal suffering from an infectious or contagious disease into the state shall be liable to all damages caused by the spreading of such disease; Senator Raines', relative to quarantine for rabies, posting notices and providing a penalty for destroying such notices while they are in force; Representative Shea's, providing that the state shall pay 50 per cent. of the appraised value of an animal condemned for glanders; Representative Boshart's, giving the chief veterinarian of the State Department of Agriculture the same authority to quarantine on account of contagious diseases, as is now held by the assistant commissioners, and also providing for a more stringent labeling of articles termed in the agricultural law "concentrated commercial feeding stuffs," and Senator Newcomb's, rearranging the control of infectious and contagious disease hospitals in New York City as between the various city departments devoted to this work.

New York City

New Training School Opened.—The formal opening exercises of the New Bellevue Training School for Nurses were held April 28. The building is located between East Twenty-fifth and Twenty-sixth streets, and cost about $1,000,000.

Hospital Suspends.—The Brooklyn Memorial Hospital for Women and Children has been closed because the work of the institution has been so seriously handicapped by the lack of facilities. Arrangements are being made for the erection of a new structure which it is hoped may be erected in two years. The Memorial Dispensary which has been connected with the hospital has been removed to Sterling Place.

To Help the Blind.—The New York Association for the Blind recently gave a benefit at the Hippodrome where between five and six thousand dollars was raised. In connection with the entertainment was an exhibition demonstrating the various kinds of work that could be done by the blind. The association asks $100,000 as a permanent fund to carry on its work and already has $85,000 pledged on condition that the remaining $15,000 be raised.

Enlarge City Hospital.—Plans have been filed for the erection of a two-story and attic pathologic laboratory building as an annex to the Metropolitan Hospital, Blackwell's Island. The main floor will contain the offices, the museum and specimen room and a room for autopsies; the second floor will be fitted as a library and with laboratories for microscopical, chemical and bacteriological research, and also a special private laboratory for the surgeons and the attic will be fitted as a menagerie for animals for experimental use. The structure will cost $40,000.

United Hebrew Charities May Get Million.—The $1,000,000 left to the United Hebrew Charities on condition that an agency should make collections for the six charities and that the funds should be distributed among them by Louis A. Heinsheimer, is still in the hands of Alfred M. Heinsheimer, as several of the institutions refused to accept the terms of the will. A meeting was recently held at which a thorough canvass of the situation was made and a resolution was passed calling for the appointment of a committee to consist of one person from each of the six institutions and each of these to choose three additional persons. The testator desired this plan of cooperation in order to reduce the expenses of collection.

NORTH DAKOTA

County Medical Society Organized.—The Richland County Medical Society was organized at Wahpeton May 3. Dr. Martin W. Ivers, Abercrombie, was elected president; Dr. Robert H. Devine, Wahpeton, vice-president; Dr. Timothy O'Brien, Wahpeton, secretary; Dr. Louis W. Meckstroth, Wahpeton, treasurer, and Dr. Charles P. Spottswood, Hankinson, censor.

State Association Meeting.—The annual meeting of the North Dakota Medical Association was held in Fargo, May 11 and 12. The following officers were elected: President, Dr. John E. Countryman, Grafton; vice-presidents, Drs. Henry H. Healy, Grand Forks; N. Oliver Ramstad, Bismarck, and Louis W. Meckstroth, Wahpeton; secretary, Dr. Hezekiah J. Rowe, Casselton (reelected); treasurer, Dr. J. Dempsey Taylor, Minot (reelected); delegate to the American Medical Association, Dr. Victor H. Stickney, Dickinson; alternate, Dr. Zella W. Stewart, Grand Forks, and councilors, Drs. P. J. Artz, Jamestown; Charles McLachlan, New Rockford; R. W. Pence, Minot, and Edgar A. Pray, Valley City. Grand Forks was chosen as meeting place for 1910.

OHIO

Will Not Prescribe Liquor.—The Wyandot County Medical Society, at its meeting April 29, adopted a resolution that its members refuse to furnish prescriptions for intoxicating liquors until, after having made a personal examination of each patient, it is deemed that the stimulant is necessary.

Sanatorium Dedicated.—On May 1, the Brookside Sanatorium, Dayton, was formally presented to the local tuberculosis society by E. B. Markey, who, in his address, dedicated the institution to the cause of bettering the condition of unfortunate consumptives. Rev. William A. Hale delivered an address on the "Great Cause of Tuberculosis." The sanatorium is located within six miles north of Dayton, and the buildings consist of a two-story brick house, and several structures erected on plans approved by the International Tuberculosis Congress.

Cincinnati

Fresh Air Society.—At the annual meeting of the Fresh Air Society it was announced that the society expected to care for from 2,000 to 3,000 on its farm near Terrace Park, during the coming season, and a plea was made for funds for this purpose, for the painting of cottages, fitting up the dining room, and constructing cement walks, for all of which $1,100 is needed.

New Plans for Interne Examination.—A new plan for the examination of internes has been adopted in Cicinnati. Four hospitals consented to hold a single examination under the auspices of the staff of the Cincinnati Hospital, the successful candidates being allowed to select the hospital in which they prefer to serve, the selection to be made in order of rank. There were 23 who passed the examination, but as there were only 20 positions to fill, 3 will act as alternates.

PENNSYLVANIA

Personal.—Dr. and Mrs. William G. Miller, New Castle, will sail for Germany early in June.——Dr. Ernest L. Clark has been elected president of the Media Free Library Association.

Appropriations Cut.—Governor Stuart reduced in general the appropriations to the state and semi-state institutions recommended by the legislature. The appropriations to these institutions, however, are higher than they were two years ago.

Food Bill Approved.—Governor Stuart approved the Todd-Murphy Food Bill, May 13. The act is now in force, previous conflicting statutes being repealed thereby. This act permits the use of benzoate of soda and sulphur dioxid as preservatives. A long list of preservatives is forbidden by the act,

including boron compounds, pyroligneous acid, salicylic acid, formaldehyd, sulphate of copper, alum and many others.

Portrait of Dr. Agnew Unveiled.—On May 13, a portrait of the late Dr. D. Hayes Agnew was unveiled at Mercersburg Academy. The members of the Franklin County Historical Society and the medical societies of Mercersburg, Chambersburg and other towns in Franklin county attended the ceremony. The address was delivered by Dr. J. William White, professor of surgery in the University of Pennsylvania.

Tuberculosis Society Directors Elected.—At the annual meeting of the Pennsylvania Society for the Prevention of Tuberculosis, held in Philadelphia April 14, the following directors were elected: Drs. Howard S. Anders, Frank A. Craig, J. Clinton Foltz, Albert P. Francine, C. Lincoln Furbush, William D. Robinson, Jr., William C. White, T. Mellor Tyson, J. Willoughby Irwin, Henry D. Jump, and J. Gurney Taylor, Philadelphia, and Dr. Charles H. Miner, Wilkesbarre.

Bill Vetoed.—Governor Stuart has vetoed the Blewitt bill, which requires all state or other hospitals in the state receiving annual appropriations from the state to furnish to sick or injured firemen, either permanent or volunteer, caused by exposure or accident while in the performance of their duties, a private room or rooms, together with all medical attention, board and supplies, free of charge. The Governor said that there appears to be no occasion for such legislation, and that therefore the act is not approved.

Philadelphia

City to Give Milk to Babies.—The Department of Health and Charities is prepared to distribute free milk and ice to babies during the hot months of the summer. This is the first time that the city has undertaken to supply milk to the children of the poor.

Health Bureau Chief Resigns.—Dr. Alexander C. Abbott, chief of the bureau of health, has resigned his position to take effect June 1. He will devote his time to his work at the University of Pennsylvania and will have charge of the laboratory of hygiene and physiology.

Educational Tuberculosis Exhibition.—An educational tuberculosis exhibition by the Pennsylvania Society for the Prevention of Tuberculosis, was opened in the Auditorium of the Kensington Young Men's Christian Association, May 17, and will remain five days. Demonstrations are being given each day and preventive measures for combating the disease are being outlined.

Lectures to Mothers.—At a conference, May 13, between the Director of Public Health and Charities, and Mrs. Frederick Schoff, president of the Mothers' Congress, arrangements were made for a series of lectures to mothers on the care and treatment of infants. The lectures will be delivered in the public schoolhouses after school hours by the assistant medical inspectors and nurses connected with the health bureau.

WASHINGTON

First-Aid Equipment for Schools.—The Seattle board of education has ordered that first-aid cases, blankets and hot-water bottles be installed in all school buildings having domestic science departments. The cost of this equipment will be a little less than $600.

Hospital Notes.—Work will soon commence on the hospital to be erected by the Sisters of Charity between Jefferson and James streets and Seventeenth and Eighteenth avenues, Seattle. The building will be of steel brick and concrete construction, six stories in height, and will cost about $250,000. ——Physicians of Bremerton have raised $1,100 by popular subscription to purchase a site for a hospital for Kitsap county. The building proposed will cost about $7,000.——Plans for a three-story addition to the Hoquiam General Hospital to cost about $10,000, have been prepared, and construction work will soon be begun.——The Emergency Hospital, Seattle, on the fourth floor of the new Municipal Building, was officially opened March 31, when 19 patients were transferred to the hospital. About $125,000 has been spent on the new hospital, which is under the direction of Dr. James E. Crichton, commissioner of health, assisted by Drs. Frank S. Bourns and Inslee B. Greene.

WISCONSIN

Home for Consumptives.—Plans are being made in Milwaukee for the construction of an isolation hospital for consumptives at Wauwatosa, on a site purchased three years ago for $32,000. The principal building on the ground will be remodeled to conform to the modern ideas of open-air treatment, and eventually smaller cottages will be erected for the use of patients.

Personal.—Dr. Adelbert Schneider, Milwaukee, has returned from Europe.——Dr. Lawrence P. Mayer, Hudson, is seriously ill with septic pneumonia.——Dr. A. D. McKinley has resigned as house surgeon at the Johnston Emergency Hospital, Milwaukee, to become superintendent of the Fox Lake Sanitarium.——Dr. James W. St. John, Janesville, has been appointed fire and police commissioner.

GENERAL NEWS AND COMMENT

Vanderbilt Alumni Meet.—The alumni of Vanderbilt University Medical Department, Nashville, Tenn., will have their headquarters at Young's Hotel at Atlantic City during the meeting of the American Medical Association, and on June 8 a banquet will be given at the hotel at 8 p. m.

Meeting of Milk Commissions.—The third annual meeting of the American Association of Medical Milk Commissions will be held June 7, at the St. Charles Hotel, Atlantic City. The association now has a membership of 48 milk commissions. Proceedings of the 1908 session will be mailed in a few days.

Internists Elect.—At the annual meeting of the Association of American Physicians, held in Washington May 11 and 12, the following officers were elected: Dr. Henry Hun, Albany, N. Y., president; Dr. Frederick Forchheimer, Cincinnati, vice-president; Dr. George M. Kober, Washington, secretary; Dr. Solomon Solis Cohen, Philadelphia, recording secretary; Dr. J. P. Crozer Griffith, Philadelphia, treasurer, and Dr. Henry Sewell, Denver, councilor.

Gastro-Enterological Meeting.—The twelfth annual meeting of the American Gastro-Enterological Association will be held at Atlantic City at the Hotel Windsor, June 7 and 8. The addresss of the president, Dr. Julius Friedenwald, Baltimore, will be on the "Development of Gastrology," and in the evening of the first day a symposium on "Gastro-Enterostomy," participated in by Drs. W. B. Cannon, Fred T. Murphy, and Franklin W. White, Boston, Henry W. Bettmann, Cincinnati, and John M. T. Finney, Baltimore.

Laryngologists to Meet.—The thirty-first annual congress of the American Laryngological Association will be held in Harvard Medical School, Boston, May 31 to June 2, under the presidency of Dr. Algernon Coolidge, Jr., Boston. The entertainment includes a luncheon given by the Boston members to the fellows and their ladies and the president's reception on the first day; a luncheon given by the Boston members of the American Otological Society and the American Laryngological Association to visiting fellows and the annual dinner on the second day. On the third day the Otological Society and Laryngological Association discuss nasal and pharyngeal conditions as causative factors in aural diseases.

The Carroll Fund.—The following subscriptions have been received since the last report:

From Medical Officers of the Army	$ 20.00
Dr. F. W. Taylor, Paauilo, Hawaii	5.00
Medical Society, Sioux County, Iowa	11.00
Dr. A. de Bey, Orange City, Iowa.	
Dr. G. A. F. de Lespinasse, Orange City.	
Dr. C. de Jong, Orange City.	
Dr. A. L. Druet, Boyden, Iowa.	
Dr. N. G. O. Coad, Hull, Iowa.	
Dr. D. J. Gleusteen, Alton, Iowa.	
Dr. G. Marris, Hull, Iowa.	
Dr. F. L. McAllister, Hawarden, Iowa.	
Dr. C. S McCarthy, Hawarden, Iowa.	
Dr. H. D. Oggel, Maurice, Iowa.	
Dr. D. J. Werkman, Secretary, Hull, Iowa.	
Kansas State Medical Society, Columbus, Kansas	55.50
Dr. A. W. Hewlett, Ann Arbor, Mich.	5.00
Dr. Alex. C. Soper, Jr., Chicago	5.00
Dr. J. H. Carstens, Detroit	5.00
Ohio State Medical Society, Columbus, Ohio	112.00
Denver County Medical Society, Denver	35.00
Physicians Round Table of the Chicago Athletic Club,	20.00
	$ 273.00
Previously acknowledged	3,825.65
Total	$4,098.65

The sum of $3,326.50 is still needed to raise the mortgage on this property. Remittances should be sent to Major Ireland, care Surgeon-General's Office, War Dept., Washington, D. C.

Tropical Medicine.—The Far Eastern Association of Tropical Medicine will meet in Manila, P. I., March 6-14, 1910. The session will open at Manila. On the second day protozoology and helminthology will be considered: on the third day, cholera, plague and leprosy: on the fourth day, surgery, obstetrics and diseases of children; on the fifth day, fevers in the tropics, including malaria, typhoid, etc.; on the sixth day, dysenteries and beriberi; on the seventh day, the association will go to Baguio, Benguet, the summer capital of the Philippines, where tuberculosis, climate, hygiene and sanitation will be discussed,

long into clinics and operative surgery, receive lectures on lectures on symptoms and diagnosis, with little stress on the gross pathology and none on the microscopic pathology. This is partly because it is presumed that that knowledge on the subject has already been imparted to the students and that they are, therefore, familiar with it. At times it may possibly be because the active surgeon has acquired, by long experience, that intuition in surgical diagnosis and interpretation which unconsciously results from and finally supplants that pathologic knowledge which he formerly had, but which has become somewhat hazy with the mist of time.

These are conditions which are perfectly natural and to be expected, but nevertheless not to be desired. The student mind, immature in medical conceptions, is unable properly to grasp and to correlate these two great and useful subjects and thereby acquire with the material already at hand and at his disposal that knowledge which has taken many of his predecessors years to acquire through varied and often bitter experiences and sad mistakes. It is this training in the correlation of the great subjects of pathology and physiology with medicine and surgery which has developed the vast majority of our world-renowned diagnosticians, surgeons and clinicians. It is not the art of surgery which has accomplished the greatest wonders, but it is the science of accurate diagnosis and interpretation which has raised surgery to the high pinnacle of to-day.

It is this breach in the teaching of the medical schools that surgical pathology tries to fill. There is much that it does do and still more that it might try to do, but one object it certainly endeavors to attain, and, if that is accomplished, the failures may be considered as atoned for. It endeavors to teach the student never to think of any one phase of the subject to the exclusion of the others, but continually to correlate his knowledge of anatomy, physiology and pathology and to make it applicable to the subject at hand. It endeavors to show that symptoms are merely effects which must follow definite underlying pathologic, physiologic or anatomic derangements and that clear and comprehensive understanding of the conditions to be dealt with necessarily means a clear conception of the gross or minute processes which are occurring beneath the superficial coverings of the skin and tissues. It endeavors to develop in the student "the microscopic eye" so that when he is called on to study a case he may quickly call to mind the possible morbid processes with which he may be dealing and the necessary morbid effects that they would produce and, by exclusion, arrive at an accurate diagnosis with its proper and scientific treatment.

As to the practical methods used to carry out these ideals, they may be many and varied. That which appeals most to me and which I have endeavored to carry out as far as possible is somewhat along the following lines. First, there should be a close and definite relationship between the departments of surgery and surgical pathology so that those in the department of surgical pathology shall have the freest access to all the surgical cases, on whatever service they may be, in order that they may be fully informed as to the history and progress of every operative case within the hospital. They should be informed in advance of every operation to be performed and as far as possible should participate in the operation so as to have that intimate knowledge of the conditions which comes only with sight and touch, at close quarters. Every specimen removed from the living body, no matter how trivial or unimportant it may appear grossly, should be sent, either immediately in the fresh state or carefully preserved in whatever form of preservation may best suit the laboratory chief, to the laboratory for examination. Every single specimen should be carefully and accurately labeled, and with each specimen should be sent a slip, giving all the important data pertaining to the case. Preferably, it should be accompanied by a copy of the full history. These histories should be filed away and indexed so as to be immediately available to any one studying the specimen.

When specimens are received in the laboratory, they should be immediately carefully described, photographed when possible or drawn if of sufficient value; then a section removed for microscopic examination and the remainder prepared by Kaiserling or other method for permanent mount. The histories, with photographs, negatives and pathologic reports, should be filed away in large envelopes so that at a moment's notice all the available data may be at hand for a careful study of the case as a whole. For the same reason all the specimens in the laboratory should be cross-catalogued in three different manners, viz.: according to the name of the patient, according to the organ or region affected, and according to the nature of the affection. Choice typical specimens should be sectioned, stained and mounted for class laboratory work, and at times it may be of advantage to teach from specimens which are not typical if thereby some point in diagnosis may be more forcibly brought to the front. At this period in the course I do not think it fair to the student to require him to spend valuable time sectioning and staining specimens; I believe that his time should be devoted to more careful study of them with a view toward the practical application of his knowledge in the wider subjects of surgery. As many of the specimens, while valuable from the teaching standpoint, are not always available when desired, and since but a very small minority of the students ever look at their slides again after leaving college, it has not been my practice to give these slides to the students, but to use them year after year until they are destroyed by breakage, etc. Usually there will be sufficient of the specimen so that slides may be presented to a few of the more interested of the students should they desire them. The classes can easily be handled if the student be given an individual tray accommodating five or more different slides for the day's study. So much for the conduct of the laboratory and the preparation for the course.

The course itself should be placed as near to the end of the college curriculum as is possible, so that it may go hand in hand with the advanced teaching in surgery and at the same time better prepare the outgoing student to take up his work in hospitals, army, navy or other advanced training ground. It should consist of both lectures and laboratory work. The lectures should be illustrated by lantern slides, by patients, specimens and illustrations whenever possible, in order to treat thoroughly the theoretical portion of the subject and in order to assemble all the essential facts from the correlated branches in so far as they are related to the subject in hand. The laboratory work is intended for a careful study of microscopic slides illustrating the various phases of the affection just lectured on. The laboratory work should be made to coincide as much as possible with the lectures so that the full force of whatever may be taught can be realized at the same time. This

work can be further helped by making this course coincide, when possible, with the lectures on surgery.

The subjects to be taught and the order and manner in which they shall be approached are matters on which all may differ and still attain good results. I have found the old method followed in the teaching of surgery, according to systems, very satisfactory and see no reason to change. I usually begin by considering the fundamental essential for surgery, namely, regeneration and repair in the various character of tissues: then I take up the diseases of the skeletal system, the surgical affections of the gastrointestinal system from the lips to the anus, including the gall bladder and pancreas, the thyroid gland, the genital system in male and female, including the breast, the surgical affections of the urinary system and, finally, the lymph system and miscellaneous conditions, as skin tumors, etc.

In treating all these subjects, whenever time will permit, a very hurried survey is first made of the anatomy, histology and physiology of the organ or region to be studied in order that the student may have at hand all the data necessary for the proper application of his pathologic knowledge to the study of the living patient. The pathology of the condition and the latest experimental findings are then gone into as carefully as possible with especial stress on their relationship to other organs and the region affected when such relationship exists. Methods of transference of conditions with routes, whenever traceable, are studied in detail, as in the case of metastasis of tumors, etc. Symptoms and recognized methods of treatment are touched on only when there is a pathologic lesson to be derived or when their own origin is easily and distinctly traceable to some plainly demonstrable macroscopic or microscopic pathologic condition. In other words, the student's attention is called to symptoms only when necessary to show how clearly dependent they are on abnormalities of structure, causing abnormalities in physiologic function. He is not required to know them as forming a clinical entity, but whenever possible an effort is made to make it easy for him to conjecture as to their presence from a simple process of deductive reasoning. The whole subject is then clinched by a couple of hours spent in the laboratory studying microscopic and gross specimens covering the subject considered.

This I submit as my answer to the query, "What is surgical pathology?" The subject as a distinct specialty is comparatively young, and courses in the various colleges are of very recent date. We feel that with proper encouragement both by students and co-educators much good can be accomplished for the student, his burdens made lighter instead of increased, his mental attitude toward medical subjects broadened, and at the same time there will develop a set of men trained in experimental surgery and pathology, well equipped to take up the burdens when time shall rob us of the masters of to-day.

2131 North Fifteenth Street.

Carbohydrates in Diabetes.—I. V. Lemann, in the *New Orleans Medical and Surgical Journal*, April, states that each case demands separate study, because cases differ not only in grade but in kind also. The tolerance of patients to various carbohydrates is different. Various complications call for alterations in diet, and unless the physician is prepared to give intelligent attention to these details he can not hope for good results from the diet he prescribes for his diabetic patients.

CANCER OF THE BREAST

F. S. DENNIS, M.D.
NEW YORK

In the present contribution, I shall refer only incidentally to statistics. In several previously published papers[1] I have given my statistics at length. I desire now to express some opinions that I have formed and facts that I have collected from a study of my own personal cases during the past twenty-five years, selecting a few cases of cancer of the breast, and analyzing them critically, because I believe it is a better way to arrive at the truth, than by a promiscuous study of a large number of cases with statistics only as a guide to determine certain important facts.

I intend to consider very briefly some salient facts in regard to the final outcome of thirty-nine cases of cancer of the breast, the histories of which I know from the time of the operation to the present day. These thirty-nine cases have been selected from a large number solely for the reason that I have a personal knowledge of each case from the incipiency of the disease to the present moment. All these patients have lived beyond the three years' limit of time. One patient has lived twenty-five years, another nineteen years, another seventeen years, and another fifteen years, and the rest from three to fourteen years with no return of the disease. In this list one was eighty-five years and another eighty-two years old. I mention these two cases to illustrate the fact that age itself appears to offer no barrier to an operation for the relief of cancer of the breast.

I am convinced that a study of the cure of cancer of the breast from a percentage point of view only has created a very false impression among surgeons and a depressing effect on the laity. The all-important question for the surgeon and the patient is this: Can a permanent cure be effected if the operation is undertaken early, and radical in character? If this view can be substantiated it will create hope in the patient, and inspire courage in the surgeon.

The clinical picture of cancer of the breast has been so drawn in past years as to create a most unfavorable impression. The early and radical operation is certain to efface this gloomy picture, and to draw in its place one that will inspire hope in the unfortunate victims of the disease. The safety of the operation is a subject worthy of consideration. In all of the operations which I have mentioned, and an accurate knowledge of which I possess, there has not been a death except in two cases of hemophilia, and such deaths are not peculiar to this special operation, but would occur in connection with any other major operation. The mortality therefore, in several hundred cases would be almost nothing, even if these cases were included, and absolutely nothing if they were excluded. The percentage of permanent cures, on the other hand, can not be so correctly estimated because so many cases are lost sight of and therefore can not furnish data for statistical purposes. In a recent small series of cases extending over three years from the time of the operation the percentage of permanent cures amounted to 77 per cent. In a previous series the percentage was 45 per cent., but these operations were done earlier in the history of what is called the complete operation. The sum total of percentages of cure therefore, would fall below the high figure previously mentioned, and above the lower figure stated in the second series. These facts certainly en-

1. Tr. Am. Surg. Assn.

courage the surgeon to hope for even better results, and as we learn more about the disease and still further improve the technic of the present operation, the future holds out even greater encouragement for more brilliant results in the cure of a disease, which in former years baffled the skill of the greatest surgeons of the day.

PERMANENT CURE

The permanent cure of cancer of the breast is a subject in which the surgeon as well as the patient take the greatest interest. All other subjects, such as etiology, diagnosis, operation, and the like, are insignificant to the patient as compared with that of the permanent cure.

What constitutes a permanent cure? Authorities differ on this question. No one is willing to admit a less time than three years as decisive. Recently some surgeons have placed the limit of time as five years. In some of my cases ten to eighteen, and even twenty-five years have elapsed with no return of the disease.

The percentage of returns after three years is so insignificant that it would seem wise for surgeons to accept this standard, not only for the encouragement of the patient, which is no small fact in the management of the disease, but because it establishes a fixed standard from which the case from an operative as well as an optimistic point of view can be judged.

ADVISABILITY OF OPERATION IN ADVANCED CASES

There is much diversity of opinion on this question. From my own experience I feel certain that it is a wise course to operate unless the mediastinal glands are involved, or unless there is visceral metastasis, or the growth is adherent to the chest wall. I have been astonished at some results after operation, in cases in which I felt absolutely certain a return and death would follow in a few months. Yet these patients have recovered and have remained free from the disease for years, and thus have demonstrated the error of a too conservative view held by the profession at large.

In some cases in which the outlook was most unfavorable, as manifested by extensive ulceration, hemorrhage, wide-spread axillary involvement, the final results have been entirely satisfactory. No better proof of this statement can be made than by a brief reference to three cases occurring in the list of thirty-nine cases of cancer of the breast. It seems pertinent to call attention to these three cases because they demonstrate the possibility of a cure when everything looked hopeless. I admit that we can not place much reliance on a cure when cases present such a chain of unfavorable symptoms. It only shows that surgeons should not withhold an operation from the patient, even when the outlook is most discouraging. The patients should have the benefit of the doubt; it is always best, however, to explain to the friends the situation, and then they will not be too greatly disappointed if the operation is attended with a quickly fatal result.

The first patient had a foul, ulcerating, hemorrhagic, and fungous breast, with axillary enlargement. I advised the operation, not with the expectation of curing the disease, but purely from an humanitarian point of view. I felt sure that the hemorrhages could in a measure be controlled, the offensive smell to a greater or less extent be removed, the constant pain, at least for a while, be relieved, and the patient be made more comfortable during the few months she lived. To my surprise after nine years this patient has been free from the disease, and to all intents and purposes is at the present time in perfect health. The operation was radical as the circumstances permitted, and I am at loss to explain the cure under these unfavorable conditions.

The second patient was the victim of a fungous, hemorrhagic foul-smelling carcinoma of the breast. I hesitated to operate at all, but did so at the request of the husband, with a full understanding that the operation was one to palliate the distressing symptoms, and with no expectation of cure. This operation was performed five years ago, and only recently the patient died from an acute disease, with no evidence of any return of the cancer.

Both of these tumors were examined by microscopists of world-wide reputation, who pronounced them carcinoma. I merely mention these two cases in the list of thirty-nine to illustrate the fact that sometimes recovery takes place in the most hopeless cases. Such instances appear to me to urge the surgeon to operate in the most desperate cases, with the most forlorn prognosis, unless, as previously indicated, there is involvement of the mediastinal glands, or visceral metastasis, or adhesion of the growth to the chest wall. I can offer no explanation as to the behavior of these two tumors, but they both seem worthy of record as evidence that our knowledge is still incomplete in regard to the course of certain types of cancer of the breast.

The third case is one in which I had operated nearly ten years ago and later a metastasis occurred in the lung with an extensive hemothorax. By aspiration a very large quantity of bloody fluid was withdrawn to relieve a severe dyspnea. To my utter astonishment, this patient, after the paracentesis, began immediately to improve from an almost bed-ridden condition, and for many years was in fairly good health and was in the habit of coming to my office from a distance for two or three years. From a study of these cases, bearing on the subject of permanent cures, I have been impressed with the fact that the histologic formation of the tumor influences in a marked degree the question of permanent cures. For example, I have found that the tumors which show structures departing but slightly from the normal, correspond in nearly every case with the group of cases, the clinical histories of which were favorable, because in these cases no return of the carcinoma occurred. The tumors that showed a great departure from the normal structure occurred in the cases with unfavorable clinical histories. The more typical the structure, therefore, the more favorable the prognosis; the more atypical, the more unfavorable the prognosis. In other words, epithelioma develops by asexual cell proliferation; the more embryonic the cell is, the more malignant the growth; and the nearer the cell approaches the normal, the less malignant the growth.

CONDITIONS REQUIRED FOR COMPLETE RECOVERY

The early and radical operation is of paramount importance, since the facts I have already mentioned clearly demonstrate the value of this rule. The early operation is indicated because glandular infection is not likely to be present, and the patient is in better physical health, from absence of worry and pain. This fact should impress the family physician with the responsibility of referring his patient early to a surgeon, who then must assume the responsibility of this important question. No growth in the breast, however small, should be disregarded, especially if the patient is ap-

proaching the menopause. It is by a view to prophylaxis that the mortality of death from cancer of the breast is to be still further reduced.

The more radical the operation, within reasonable limits, the better the prognosis. It seems unnecessary and a loss of time to discuss this point, since it is universally admitted that the more radical the operation, the less likely it is that the disease will return. The difficulty seems to be as to what constitutes a radical operation. Surgeons agree that all skin over the infected area should be sacrificed. The breast, with Sir Astley Cooper's ligaments, should be entirely removed, the pectoral fascia and muscles should be excised, the axillary glands, the perimammary and retromammary fat, likewise the paramammary areolar tissue should be dissected out as the minimum operation. If the cancer involves the ribs, perforates the thoracic wall, and has already infected the mediastinal glands, no operation, however radical, would be attended with any success. The same rule may also apply to that form of cancer termed *en cuirasse*, or *en plaques*, or acute miliary carcinosis. I am firmly convinced that any radical operation, more than has been described, will be of no avail. The element of time should be seriously considered, since the performance of any operation which requires the patient to be under an anesthetic for four or five hours, is attended with a risk, which if possible should be obviated. These prolonged operations are sometimes followed by ether pneumonia, acute sepsis, profound shock, suppression of urine, and many other like conditions, which jeopardize the life of the patient. In other words, we must not lose sight of some of the general principles connected with surgery, at the expense of the elaboration of an operation, the performance of which eliminates some of the best precepts and practices of our art.

In most of my cases in which no return has ever occurred, even though twenty-five years have elapsed since the operation, the patients, almost without exception, were operated on within six months from the first appearance of the disease. This point seems to me of the greatest importance in relation to the prognosis, and without question the earlier the operation the more certain it is that a permanent cure can be effected. At this point naturally the question arises as to a certainty of diagnosis within six months. I admit that it is often difficult to determine with absolute certainty that any small nodule in the breast is carcinomatous. The obstacle presented by the theory that a correct diagnosis of carcinoma within six months is a *sine qua non* for operative interference has been removed in my own mind, by a rule that all nodules or tumors in a breast in a woman at the time of or near to, or after the menopause, especially with a depressed nipple and skin dimpling, should be removed by a complete ablation of the breast. The risk run is too great if surgical interference is deferred until the diagnosis is made certain.

In several cases during the past few years I have adopted this procedure, and to my surprise the microscopic report has been returned with the diagnosis of incipient epithelioma. In such cases the patients do well as they are taken early in the course of the disease, and the nodule is small and surrounded by healthy glandular tissue. In the hands of a good surgeon with aseptic environment the risk of removing the breast is so slight that it may almost be disregarded as a factor in determining the question of an operation.

A point still further to consider is that in a large majority of cases in which a nodule or tumor is felt, it is almost certain in time to become malignant, if it has not already begun to undergo malignant degeneration. This same law of early surgical interference holds good in case of tuberculous induration, in syphilitic ulceration, in actinomycosis, or in other infective processes.

The question is more difficult when the patient is a young woman, and the growth is adenomatous. Such cases are more difficult to manage; but I am still of the opinion that all adenomata in the young should be removed, and in the case of very young girls only the nodule itself excised and examined, and if then found to be undergoing epitheliomatous changes, the entire breast should be removed by a radical operation. In the case of young girls or young women, the breast can be raised by a flap with an incision under the breast and in its fold, and turned on the thoracic wall, and the adenoma attacked from the posterior surface of the gland. After excision of the adenoma the breast can be turned down and sutured with the scar completely hid from view. I have done this and preserved the symmetry of the breast; and I have record of cases of this kind in which the breast subsequently performed its function of lactation.

In cases of chronic mastitis in a woman over forty, if pain is a constant factor, and the interstitial induration is marked, the breast should be removed to prevent the possibility of malignant degenerative changes. Within a few weeks I removed a breast for painful mastitis, and Dr. Norris reports that beginning epithelioma is present.

THE MANAGEMENT OF CASES THAT DO NOT ADMIT OPERATION

These are the cases that tax the surgeon's skill, and cause severe suffering to the patient. Nothing is more distressing to the surgeon and painful to the patient than to watch the progress of a fatal disease with the full knowledge of the condition—both waiting, utterly helpless, until the end comes, and death closes the scene.

In such cases the surgeon's duty is to mitigate the suffering, and to make the patient as comfortable as possible with a view to euthanasia. The different methods of treatment of cancer of the breast, in cases in which no operation is possible, can be discussed very briefly. The *x*-ray is one of the methods now in vogue. One writer has reported a dozen cases of cancer of the breast in which cures were effected by the *x*-ray. The absence of a microscopic examination of any of the tumors, and the fact that not a single case in the list had yet reached the three years' limit of time make these cases valueless as a basis on which to study results.

The *x*-ray is a force that should not be employed by one who is not an expert in its use, because its employment even by the best men has been followed by violent dermatitis, by ulcers that fail to heal, and that finally became the starting point of epithelioma. In a recent article by Pusey, some interesting clinical facts have been brought out in connection with the *x*-ray, which are worthy of mention. He thinks that the *x*-ray is not suitable for cases of carcinoma in which the adjacent lymph nodes are involved. It is also futile in cancer of the neck, or of the viscera. In recurrent carcinoma of the breast, alleviation of suffering for a few months has followed the *x*-ray treatment, but no cures have

more than one-fourth of all breast cancers. I have only once operated on mother and daughter. Both, I am pleased to say, are still living in good health, the daughter having been operated on in June, 1904, and the mother in July, 1906. The case of the latter was one of the most interesting I have ever seen, inasmuch as the removed specimen demonstrated cancer and a number of very small abscesses—which I think were tuberculous—and Professor McFarland, the pathologist, was unable to say which was the primary condition. A photograph of the specimen is shown in my book.[1] I have frequently operated on women who gave a history of cancer of the breast in their mothers and sisters, and occasionally it has shown itself in three generations—grandmother, mother and daughter.

Before leaving the subject of diagnosis, it must be candidly admitted that in about 10 per cent. of patients cancer of the breast can not be recognized clinically in its early or operable stage, for in addition to the difficulty of differentiating between solid growths, it is even more difficult to distinguish between benign and malignant cysts. This can safely be determined only by the microscope, and that it is necessary to be most careful in separating the one from the other no experienced surgeon will deny.

It is true that a bloody or sanguinolent discharge indicates malignancy, but a clear fluid does not by any means demonstrate benignity. Nothing save the microscope can positively discriminate between simple and malignant cysts. Hence, the danger of any other treatment than excision, not only of the entire cyst wall, but of enough adjacent tissue reasonably to insure eradication of the disease. I would emphasize the fact that cysts are often malignant when they would seem macroscopically, on account of their thin walls and clear contents, to be innocent; furthermore, that the degree of their malignancy is very great, so much so that a mistake made at the time of operation may not, probably will not, be atoned for by a second and more complete operation after the microscopist has made his report. In the first place, a radical second operation, even if performed within a fortnight, is likely to result in failure on account of the liberation and distribution of epithelial cells at the time of the first operation. Secondly, the patient will generally refuse a second operation; and it is most embarrassing to the surgeon to be placed in such a position. Here, as elsewhere, partial removal may do more harm than good, stimulating the remaining cells to an unwonted growth. Therefore, there is but one reasonably safe and certain method to follow in doubtful cases: the patient's consent to a complete operation should first be obtained, explaining fully that it will not be resorted to unless the microscopic examination made at the time of the operation demonstrates its necessity. The most suspicious part of the growth should be removed, along with adjacent structures if possible, and given to a microscopist who is present and who is, moreover, familiar with making reports from frozen sections. The wound should be instantly plugged with gauze, then cauterized with the actual cautery. In this way *only* will the danger of possible dissemination of cancer be minimized. I have followed this plan more than fifteen years and have known but one malignant tumor mistaken by the pathologist for a benign one. In this case the mistake was more than pardonable, although a clinical diagnosis of cancer had been made, as it was not until many sections had been cut at the second or confirmatory examination ten days after the first operation that carcinomatous tissue was encountered. In other words, the portion of the growth first examined was benign. That at the second examination was also found to be benign, until the thirteenth section was made and examined. Figures 1 and 2, from photomicrographs of the only lobule involved, indicate the malignant change to be in its incipiency. The pathologist, Dr. Wieder, thinks it as early, and therefore as favorable a case as he has ever examined. I am indebted to him for these excellent photomicrographs. The patient was advised to have and fortunately accepted the second operation.

Admitting that mistakes must occasionally occur in the hands of those doing frozen section work, it is no more than we must expect even in the less rapid and presumably more careful work ordinarily done in the pathologic laboratory; for I have known some of the very best pathologists to make mistakes and reverse themselves after several examinations of the same tumor. Only a few weeks ago I removed what I supposed to be a large sarcoma of the breast. Figure 3 shows this specimen. In ten days after the operation the report came back from the laboratory "sarcoma undoubtedly," four or five of the best pathologists in Philadelphia having examined the specimen. In fact, it was shown at the Pathological Society of Philadelphia. Several weeks afterward a second report was sent me to the effect that the tumor was also in places carcinomatous. This opinion has been expressed by pathologists of very highest standing, among the number Professor Smith of the University of Pennsylvania, and Dr. Repplier of the Presbyterian Hospital. It is only reasonable to suppose that such apparently contradictory reports must now and then result, notwithstanding every precaution to insure accuracy primarily. This is the only case I have ever encountered in which there were both sarcoma and carcinoma undoubtedly present in the same specimen. Others have reported such cases, and it explains many strange and inconsistent things in the subsequent history of cases. For instance, it explains why the secondary or daughter growth did not resemble the parent neoplasm.

COMPLICATIONS

Next to the variety of the growth, the prognosis is most influenced by the presence or absence of enlarged glands in the axilla and elsewhere. This fact has been emphasized by every writer from time immemorial. It has been made more definitely clear by the recent statistics of the Johns Hopkins Hospital[2] and the Massachusetts General Hospital,[3] in both of which series the cases were carefully scrutinized with reference to the involvement of the axilla. In 64 of 232 patients operated on in the Johns Hopkins Hospital, in whom there were undemonstrated glandular involvement, 51 or 80 per cent. were free from recurrence at the expiration of three years. Of 110 patients with demonstrated axillary involvement, only 24.5 per cent. were free from recurrence at the expiration of three years. Of 236 patients with palpable axillary involvement, before operation, operated on in the Massachusetts General Hospital during the decennium from 1894 to 1904, only 12 per cent. were cured by operation. Of 117 patients operated on in the same hospital, in whom no glands were felt in the axilla, 29 per cent. were cured. In nearly all of the cases, even though palpable enlarge-

2. Halsted: Tr. Am. Surg. Assn., 1907, xxv, 64.
3. Greenough, Simmons and Barney: Tr. Am. Surg. Assn., 1907, xxv, 90.

ment of the glands was not manifest, there was found to be microscopic involvement. It is only fair to suppose that limited involvement of the axillary glands may be successfully met by operation, for in such cases the epithelial cells are confined to the interior of the glands and therefore can be entirely removed. But if there is gross involvement of the axilla, particularly if the glands have become matted and fused together, the presumption is that the capsule and tissues around the glands have also become infected and that the prognosis even after an extensive operation, must necessarily be bad. The advantage resulting from early operation, before there is palpable involvement of the axilla, and the hazard of delay until axillary involvement has taken place, could not be more forcibly shown than has been done by the statistics of two such large and representative hospitals. Moreover, the experience in these hospitals, and in all others so far as my knowledge goes, demonstrates forcibly that in cases in which axillary involvement is so great as to make resection of the axillary vein necessary in order seemingly to get beyond the encroachments of the disease, operation, though possibly prolonging life, has not resulted in a single cure. I would again insist on the fact that no one, however skilled, can always or usually recognize before operation the presence of enlarged axillary glands; and that such enlargement, though not detected beforehand, will nearly always be encountered when the axilla is carefully explored. It is certainly never safe to assume that enlarged axillary glands do not exist. In all cases, even cases of adenocarcinoma in which glandular involvement is less apt to occur than in other varieties, a thorough dissection of the axilla is just as important as removal of the breast itself. Only once have I operated for either medullary or scirrhous carcinoma without encountering unmistakable enlargement of the axillary nodes when the axilla was explored. Frequently I have failed to detect such enlargement before operation.

Next and hardly secondary in importance to involvement of the neighboring lymphatic glands is the adhesion of the growth to neighboring structures, notably the skin and pectoral wall. Every surgeon has recognized the gravity of adhesion to the chest wall and the comparative futility of operation to give more than temporary relief. The statistics of the Massachusetts General Hospital, while clearly indicating this to be a serious complication, show that of 45 such patients, 5, or 11 per cent. passed the three-year limit without recurrence. Of 194 cases in which there was no adhesion to the chest wall, 41, or 21 per cent., were successful. Where the skin alone is adherent, the prognosis, while less favorable than in cases without adhesion, is better than it is where adhesion to the chest wall is present. Of 262 patients with adherent skin, only 42, or 16 per cent. were cured by operation. In 71 patients in whom the skin was not adherent, 23, or 37 per cent., were cured. Therefore, this complication is of much greater importance than it would at first seem, and its unfavorableness is easily appreciated by remembering the fact that the largest and most important of the lymph-bearing channels are found in the skin.

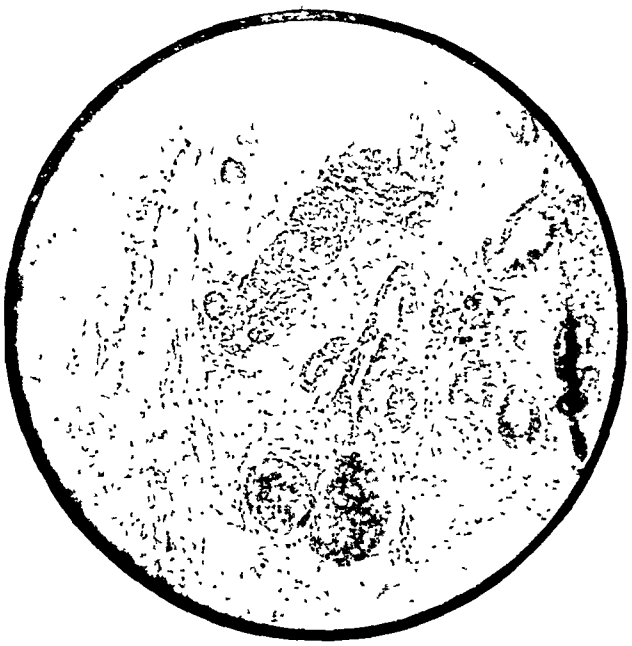


Fig 1.—Specimen from malignant tumor, at first mistaken for benign growth, low-power view of only lobule involved

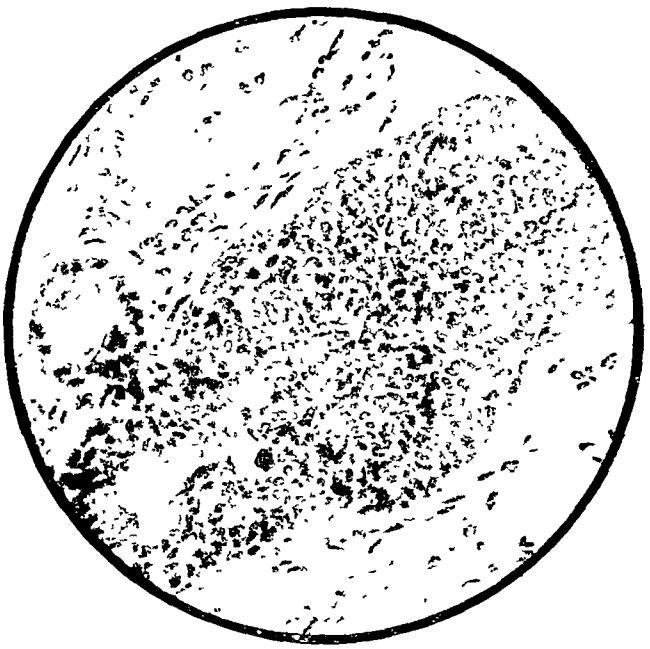


Fig. 2.—High power view of same acinus shown in Figure 1

ENLARGED SUPRACLAVICULAR GLANDS

Palpable enlarged glands above the clavicle have always been considered by surgeons to be the gravest of complications, and practically to preclude operative relief. In fact, they have almost universally been looked on as a positive barrier to operation. While of the greatest significance, it must be remembered that such enlargement may be inflammatory. Of 40 patients with palpable neck involvement operated on in the Massachusetts General Hospital,[3] 2 were found to be free from carcinomatous involvement and were well three years after operation. All of the remaining 38 cases were fatal. Of 40 operative cases in the Johns Hopkins Hospital[8] with positive involvement of the neck and the axilla, 3, or 7.5 per cent. were cured. This is perhaps the best showing that can be made in this class of cases, inasmuch as the neck operation was first advised and has been insistently carried out at the Hopkins Hospital during the past fifteen years. While I have never known a patient of my own with either palpable or microscopic involvement of the supraclavicular glands to be cured by operation, I did have one

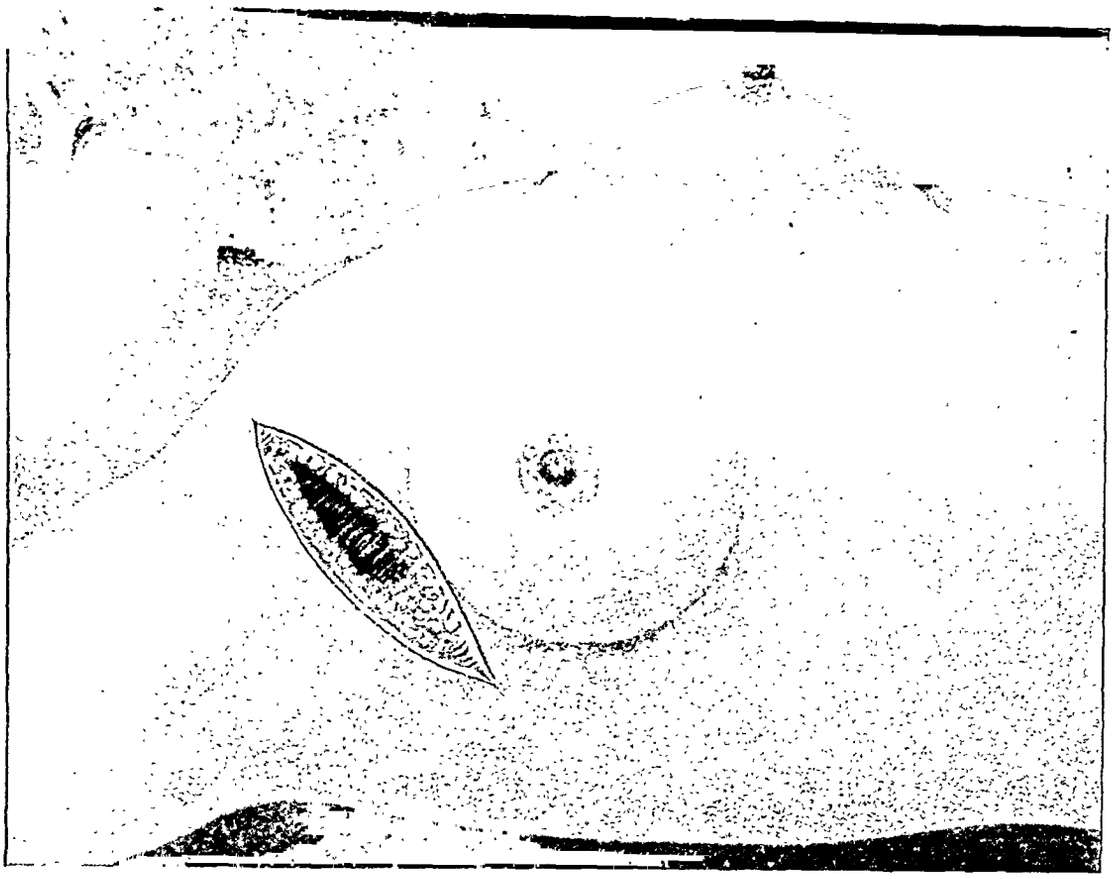


Fig. 6.—Primary skin incision.

cent. passing the three-year limit. This was the best showing, so far as I know, made by any surgeon up to that date.

These results, together with the pronouncement of Meyer and Halsted in favor of a freer and more anatomic operation, stimulated others to greater endeavor, and, we may say, presaged the greatest advance yet made in breast surgery. At the present time it is not claiming too much to say that at least one-third of the mammary cancers which come to operation should be cured, and that early cases should give a much better prognosis — one-half or two-thirds of the patients making permanent recoveries. If the patient fortunately presents herself for operation before there is either adhesion of the skin, axillary involvement or other complication — in other words, while the disease is strictly local—80 per cent., or four out of five, should be cured.

But, taking cases as they come, early and late, we find that of 210 patients operated on in the Johns Hopkins Hospital, whose cases were traced later, 42.3 per cent. were apparently cured three years or longer.[2] This is the best showing made by any hospital of which I have knowledge, but no better than a number of individual surgeons have done. It is my own belief that we shall more accurately measure the true value of any operation for cancer by taking the smaller series of surgeons who are able to follow their private patients for many years after operation. It is simply impossible to trace accurately a large number of hospital cases. I have long since been made to realize the impossibility of satisfactorily doing so and, therefore, have abandoned the attempt. In the first place, one's private patients are more intelligent, seek advice earlier, submit to operation more readily, and if told that their safety depends on regular visits to the surgeon for at least five years after operation, they will willingly do so.

I have not for many years hesitated to tell patients that they have cancer, and, in my judgment, it is a great mistake not to do so. If the advantages of an early operation and the hazards of delay are fairly placed before patients, they will rarely hesitate. Therefore, it is

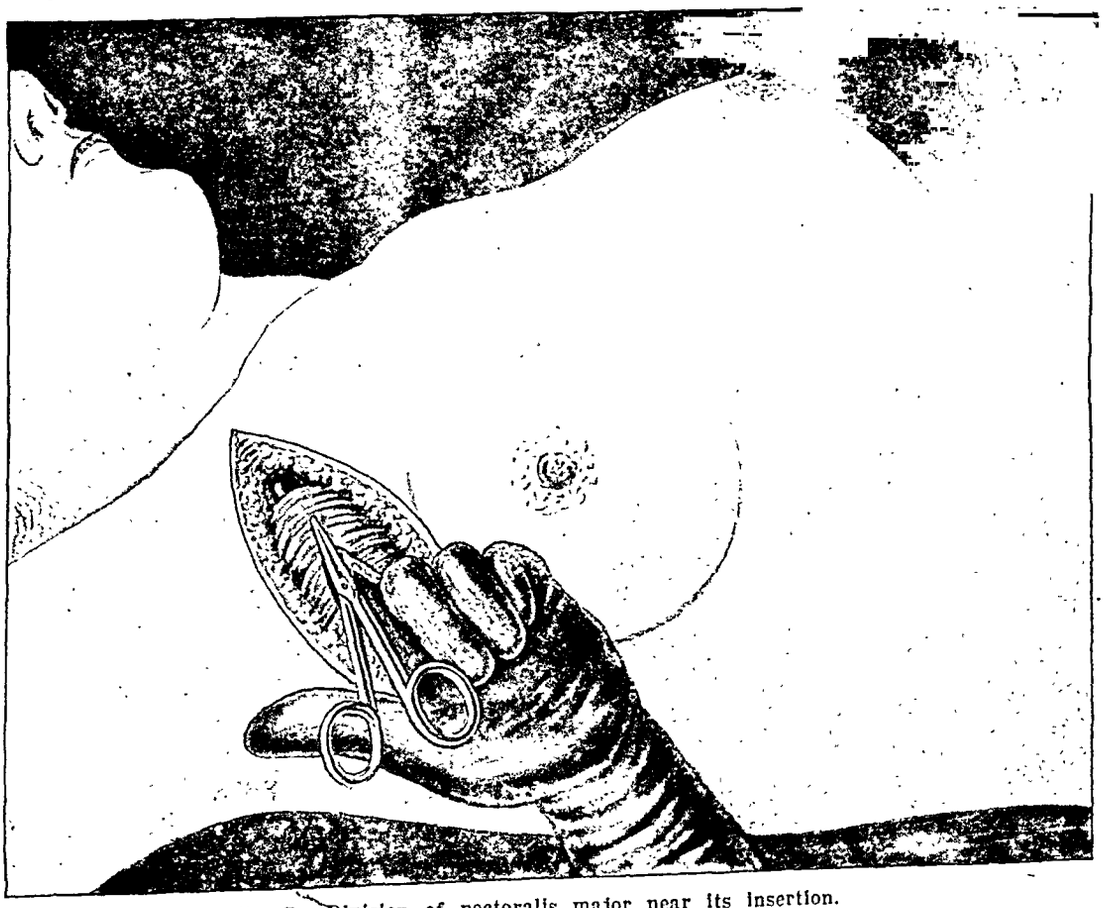


Fig. 7.—Division of pectoralis major near its insertion.

much better and fairer to them to call the disease by a name which all understand and dread rather than to call it a "tumor" or a "malignant growth," the nature of which they do not apprehend. Of course, half-truths are told with the very best and most humane motives, but the whole truth very soon dawns on the unfortunate victims with appalling force, and, mayhap, when it is too late. The truth should be told delicately and with consideration, of course, but it should be told, nevertheless.

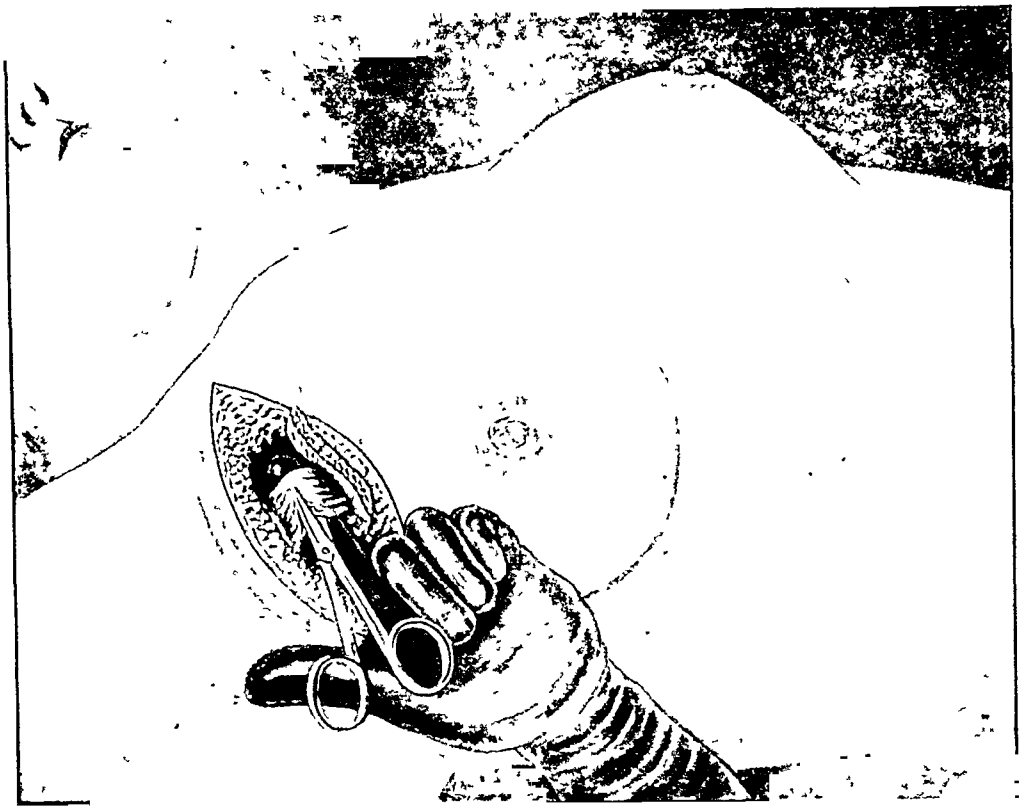


Fig. 8.—Division of pectoralis minor at its insertion.

During the ten years from Sept. 1, 1898, to September, 1908, or since my removal to Philadelphia, I have certainly operated on more than a hundred patients with cancer of the breast. Of the ward patients treated in the five hospitals with which I have been connected—I estimate them at fifty or upward—very little is definitely known. Therefore, all are excluded. Of 25 private patients operated on, which includes every patient treated from 1898 to 1905, 7 are dead and 1 is living with recurrence. This patient had, at the time of operation, a very large goiter, rapidly increasing in size, which she declined to have removed. Dr. Fell, of Wilkes-Barre, writes me that the goiter has further increased in volume and that the opposite breast is certainly involved to a pronounced extent. Seventeen, or 68 per cent., are living in good health without local or general evidence of recurrence.

To show that my cases were at least of average severity, two of the patients had been operated on by other surgeons and had suffered recurrences. In one of them I was compelled to resect the axillary vein to the extent of four inches on account of extensive axillary infection. Both of these are dead. In one other case the growth was so advanced that I should very likely have declined to interfere, but for the insistence of the patient's husband, who was a physician. Both he and she declined operation when I first advised it a year before, as they were about starting to California for the winter on account of his health. Two of the 17 recovered patients had adenocarcinoma, 2 had cancerous cysts, 2 medullary, and 11 scirrhous growths. One of the cured patients had both breasts affected.

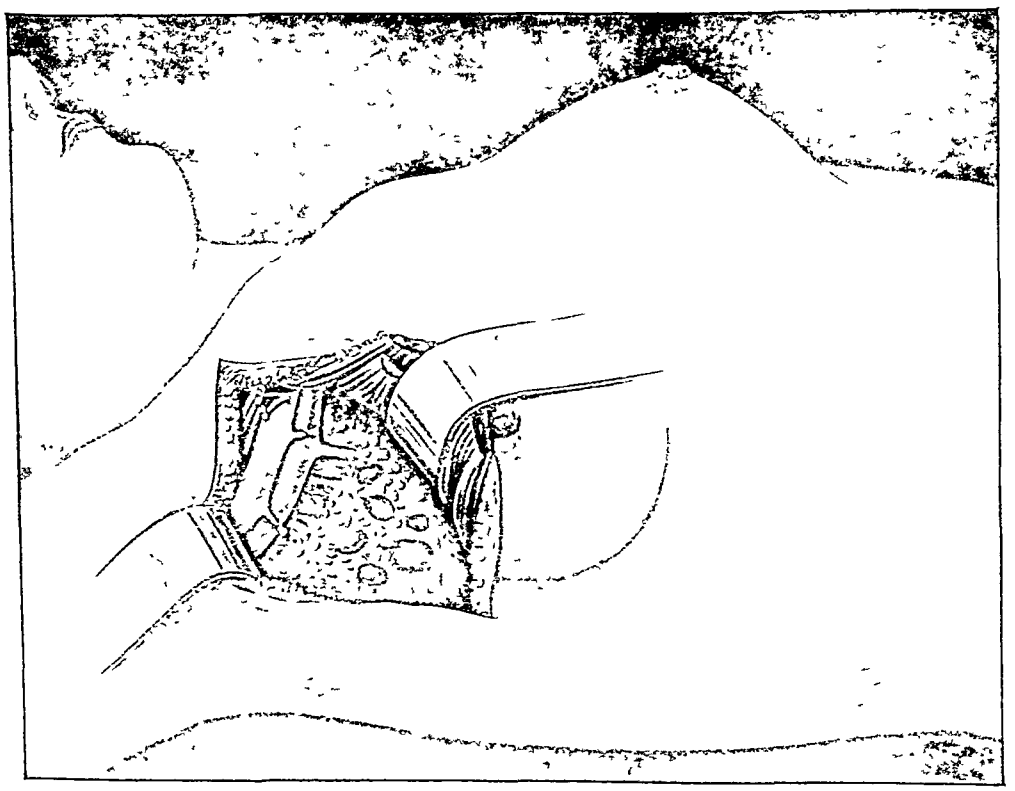


Fig. 9.—Axilla freely exposed and vessels divided at their origin.

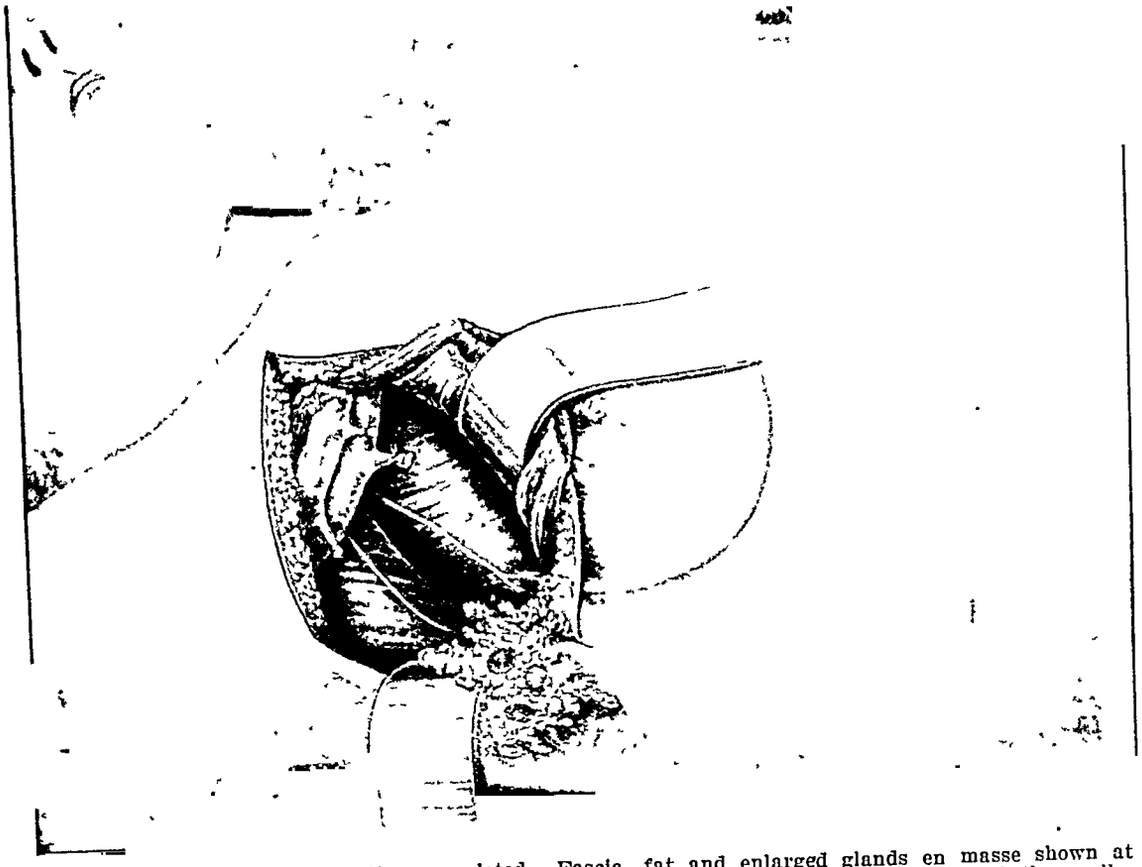


Fig. 10.—Axillary dissection completed. Fascia, fat and enlarged glands en masse shown at base of axilla. External respiratory, or nerve of Bell, shown on the inner wall of the axilla Subscapular nerve on the posterior wall. Sheath covering all muscles removed

An interesting and encouraging feature of the series is that two of the cured patients were operated on during pregnancy. Both went to term. Patient 14, whose case was fatal, also had pulmonary tuberculosis. Cancer and tuberculosis rarely coexist, this being the only time I have encountered it. This was a patient of Dr. P. S. Donnellan, now residing in San Diego, Cal.

The patients whose cases are of longest standing were operated on January, 1899, May, 1900, December, 1900, and November, 1902, respectively. All are perfectly well. Figure 4 is from a photograph of the last, on whom a double amputation was done. Skin grafting was done on the right, but not on the left side.

I may add that one patient, a woman, aged 77, with a very bad heart, died suddenly within a week after the operation. As this case has no possible bearing on the subject of ultimate result, it is only mentioned for the reason that I wish to include every private case submitted for operation. Had the patient survived the operation, the chances of a radical cure would have been good, as the growth proved to be adenocarcinoma.

Since 1905 I have operated on a larger number of private cases than in the preceding seven years, and many of the patients have gone long enough to convince me that the end-results will be at least as good if not better than in the series herein reported.

My method of operating has meantime changed somewhat, all the while tending to become more radical. Two years ago I definitely abandoned all flap operations as being at least potentially dangerous. They are alluring and seductive, inasmuch as they often facilitate the closure of a wound otherwise difficult; but that they may do so to the prejudice of an abiding result there can not be the slightest doubt. He who always begins and ends his incision in the same manner for a disease so protean in its manifestations and so widely variant in its local ex-

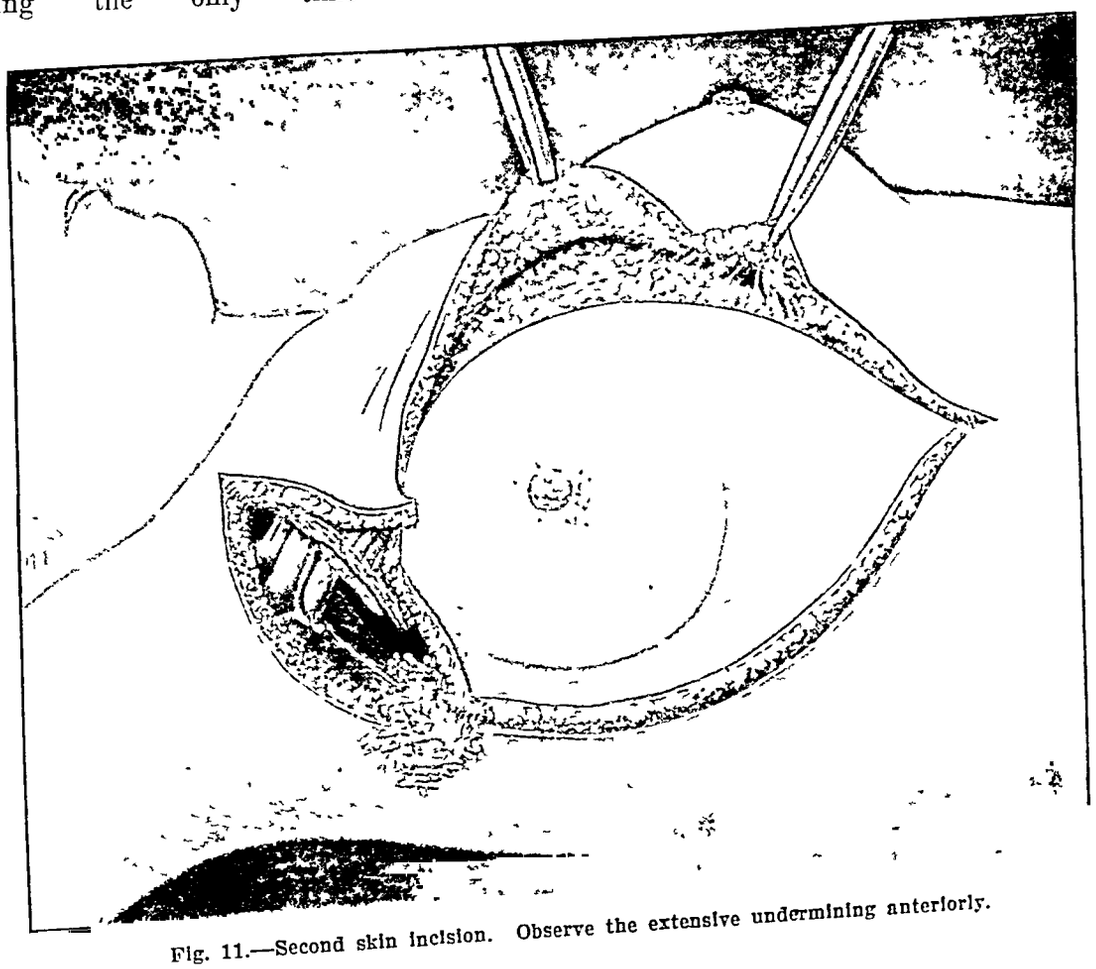


Fig. 11.—Second skin incision. Observe the extensive undermining anteriorly.

pressions will in time necessarily be disappointed and chastened, if not disheartened utterly. If anything has been demonstrated, it is that recurrences generally manifest themselves in the skin, and that its wide removal is the prime consideration, even though the necessarily large wound made must be closed by either undermining or skin grafting.

The operative mortality was less than 1 per cent. in 2,133 operations performed by 25 American surgeons who do a very extensive operation. The radical procedure is just as safe as incomplete operations — I believe safer, because it permits accurate work in the axilla. Much of the previous heavy mortality from breast operations resulted from hemorrhage, shock and sepsis, due to wounding the vessels, especially the axillary vein, on account of an attempt to clear out the axilla through an inadequate wound.

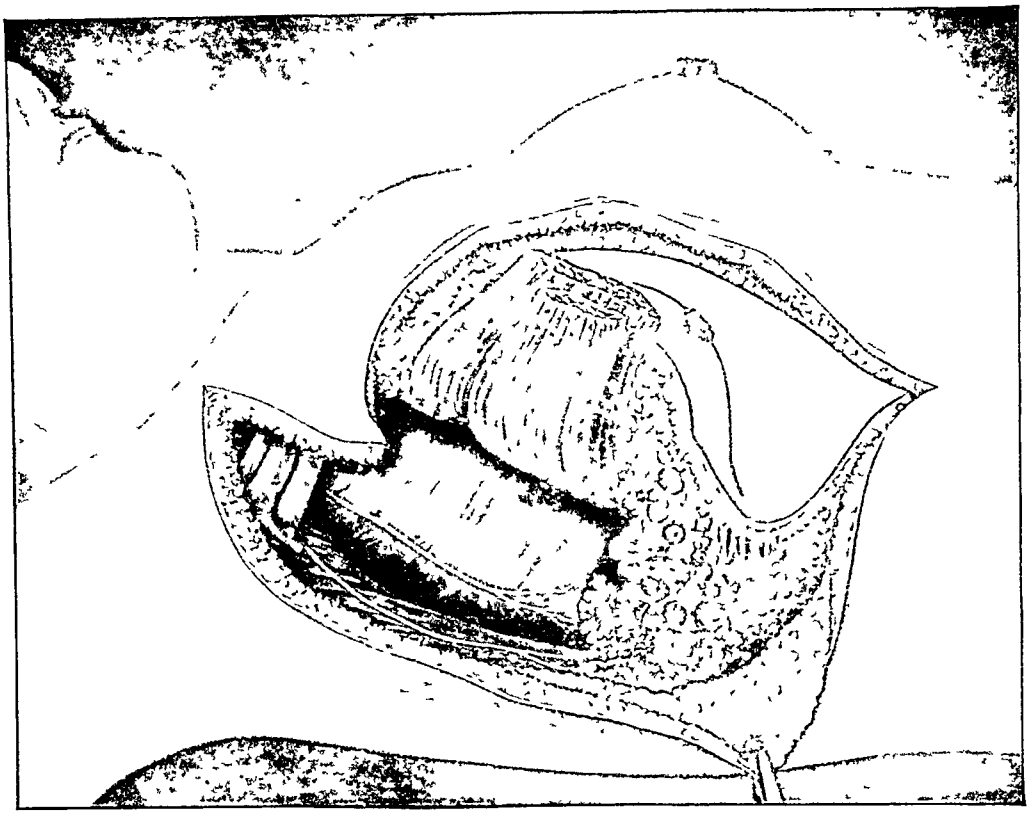


Fig. 12.—Undermining inferiorly. Muscles, breast and axillary mass being reflected prior to removal.

TREATMENT

There is but one treatment for cancer of the breast—operation—and the earlier and more radical the procedure the better. The chances of a cure in any given case depend almost wholly on the timeliness and manner of operating. It should be unnecessary to point out the futility and harmfulness of local applications, caustics, radium and *x*-rays. All are time-consuming, none of demonstrated value; consequently they should not be used until after operation has failed, or possibly as an adjuvant to it in well-selected cases. Hence, it is necessary only to consider a few of the more prominent and basic principles in the operation for breast cancer. A large wound, removal of the pectoral muscles, a thorough axillary dissection *en masse*, are theoretically admitted to be necessary by practically all advanced surgeons. A few who do not remove

Fig. 13.—Appearance of the wound after removal of the breast, muscles and axillary mass. A small part of the origin of pectoral muscles left as a covering for the ribs. This very much facilitates grafting, when necessary, which is rarely the case. In fourteen operations during the winter it has been necessary in only two cases.

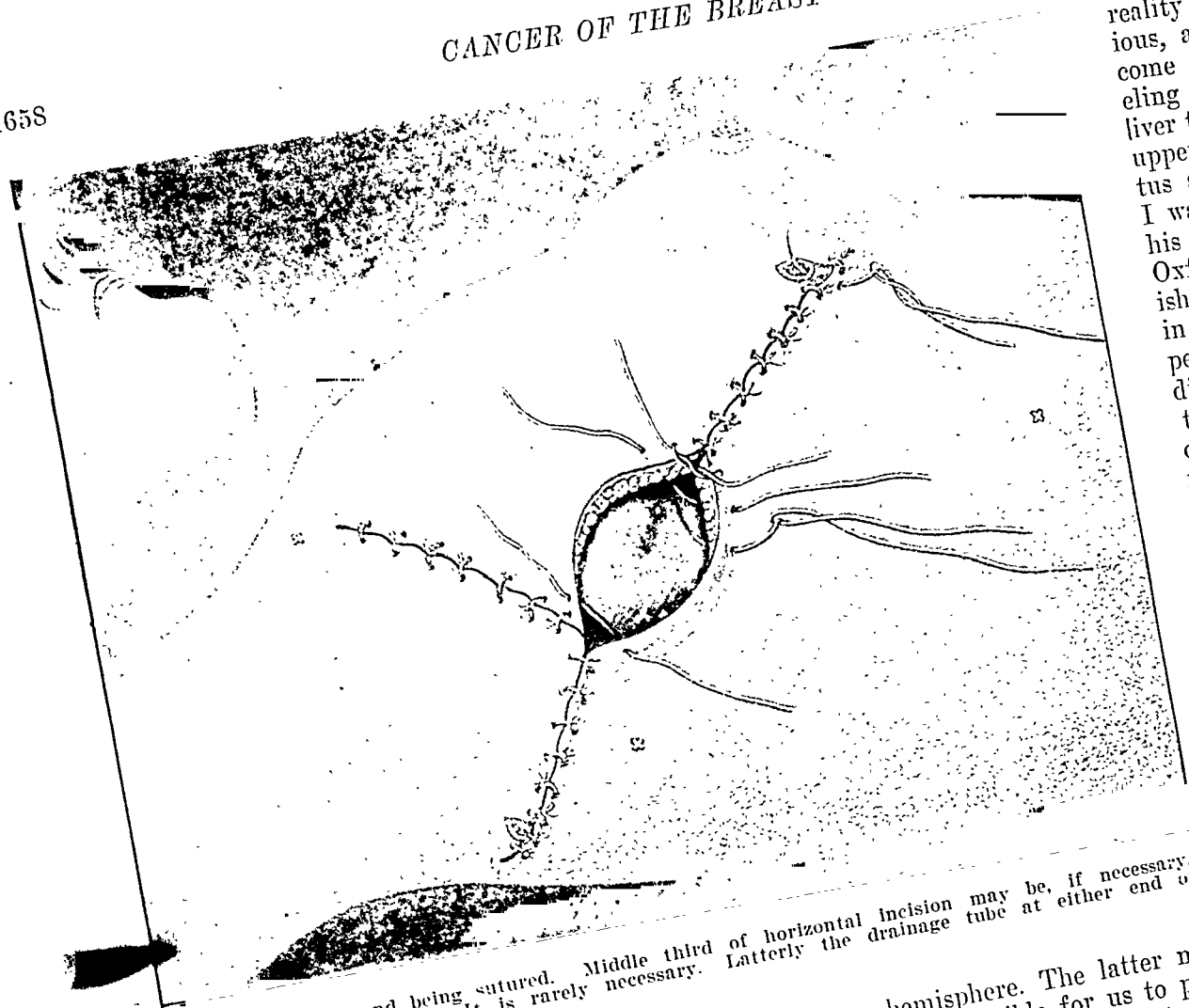


Fig. 14.—Wound being sutured. Middle third of horizontal incision may be, if necessary, covered by skin-grafting. It is rarely necessary. Latterly the drainage tube at either end of horizontal wound is omitted

the muscles cut across and retract the ends, so as to uncover the axilla, subsequently suturing them. A smaller number, I think, practice removal of the fasciæ covering the subscapular, serratus, latissimus and other muscles exposed in the axillary dissection; and still fewer continue the incision far enough internally and inferiorally to expose the sheath of the rectus in the epigastric triangle. Almost none remove it. The investigations and teachings of Mr. Handley,[10] of London, indicate that carcinoma spreads peripherally by permeation of its epithelial cells along the deep fascial planes; hence the reasonableness of removing fasciæ possibly infected. Mr. Handley also insists—and he has much to support his contention—that abdominal metastases are more frequent than thoracic ones and, instead of the lungs being most often the site of secondary foci, as we formerly believed, the liver in reality is most obnoxious, and that to overcome infection traveling from breast to liver the sheath over the upper part of the rectus should be removed. I was so impressed with his views set forth at Oxford before the British Medical Association in 1904, where we appeared jointly in the discussion of cancer of the breast, that I at once began enlarging my wound internally, making a freer dissection of the epigastric triangle and removing the sheath of the rectus in all cases when the tumor involves the sternal hemisphere, especially its lower quadrant. I have always believed and frequently insisted on it previously that growths involving the inner half of the breast are deadlier than are those of the outer hemisphere. The latter metastasize to the axilla, where it is possible for us to pursue and destroy the enemy; but the former metastasize to the liver, mediastinum, lungs, sternum, ribs or vertebræ—all veritable Gibraltars—defying surgical attack by either assault or siege.

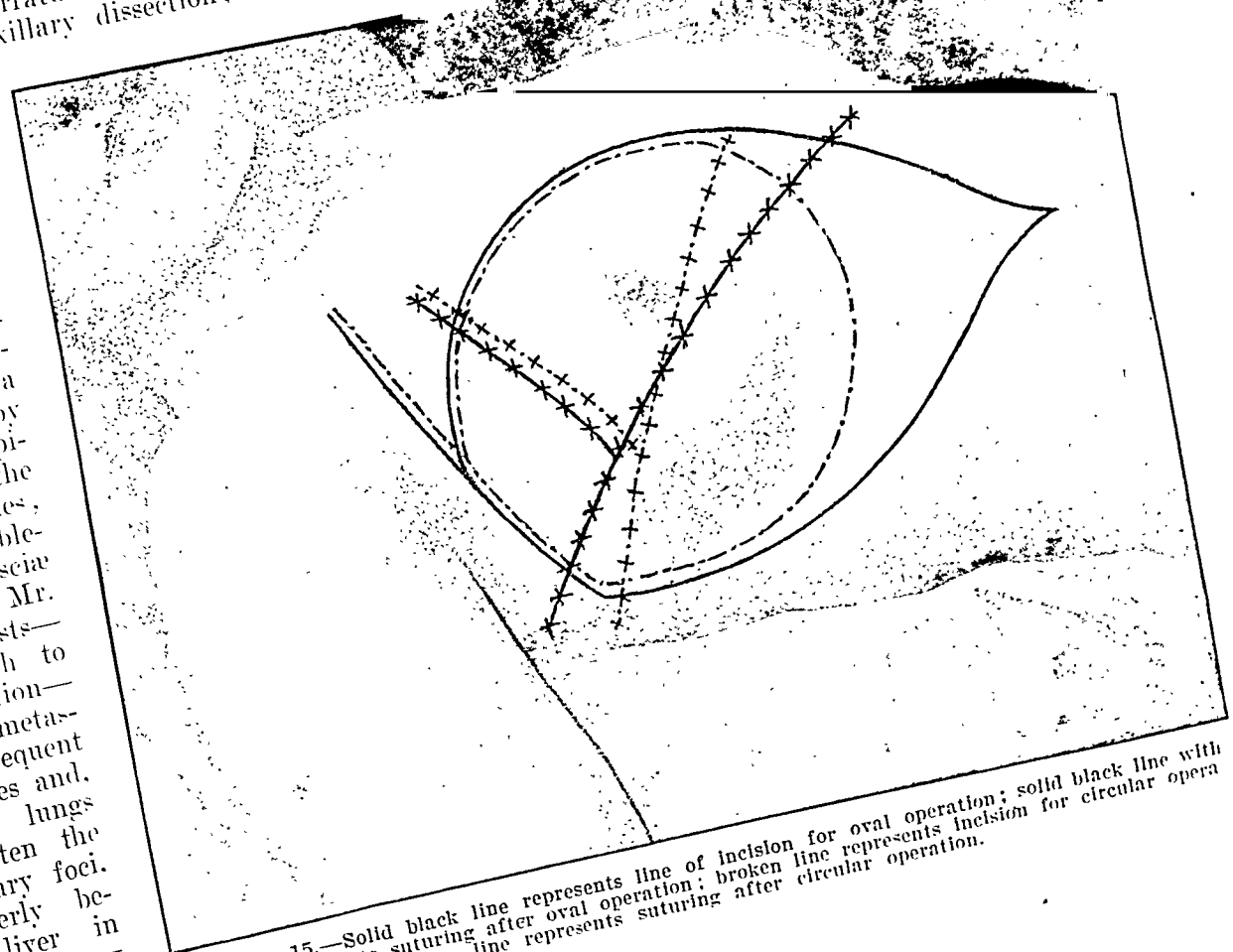


Fig. 15.—Solid black line represents line of incision for oval operation; solid black line with crosses represents suturing after oval operation; broken line represents incision for circular operation, and crossed broken line represents suturing after circular operation.

10. Cancer of the breast and Its Operative Treatment, John Murray, London, 1906.

The following is a brief report of a case occuring in my practice:

Patient.—Mrs. H. of Walton, Ind., a patient of Dr. Carpenter, was operated on for gallstone disease on March 19. The symptoms which had led the family physician to the diagnosis of gallstones were those which are observed usually in such cases. There had been present gallstone colic, left-sided pains (suggestive of adhesions between the pylorus and the gall bladder) and shoulder pains, followed by nausea and vomiting. There were jaundice and digestive disturbances, muscular rigidity and bile pigment present in the urine as shown by Baudouin's test, also by Loeffler's blue.

Operation.—When the abdomen was opened the gall bladder was found enlarged and adherent and drawn toward the median line of the body lying in immediate relationship with the pylorus. The gall bladder was opened in the usual way. Gallstones were found, and during the removal of these the scoop caught on a mass of what seemed at first to be a very stiff string of organized fibrin occupying the lumen of the organ. On removing this with artery forceps it was seen that the tough fibrin containing bile solids surrounded a stiff, pointed object which later was found to be an ordinary short sewing-needle.

How the needle came into the gall bladder is not known. It is presumed that the woman swallowed it, but this, of course, is only a hypothesis. The woman was accustomed to use needles like that found in her work and had occasionally put such objects into her mouth, as most women do, but does not remember having swallowed a needle. If the needle was swallowed it might easily have found its way into the gall blader in the manner suggested above.

The body of the gall bladder is, as is well known, in relation by its under surface with the first portion of the duodenum, occasionally with the pyloric end of the stomach and the hepatic flexure of the colon. The needle might have traversed the wall of the intestinal canal proper in any one of these three portions and found the wall of the gall bladder in immediate apposition with the canal, which it had just left. It does not seem at all likely that the needle backed up stream, so to speak through the ampulla of Vater, the common and the cystic ducts. To any one familiar with the causation of gallstones, the probable relationship of the presence of the needle to the stones will be clear. It is quite fair to assume that such a foreign body as the needle, having carried in infection, could provoke sufficient inflammation of the gall bladder and ducts with consequent obstruction as to lead to precipitation of the bile salts and gallstone disease. There were no stones in the ducts and the symptoms, as might be expected, have quite disappeared.

331 North Delaware Street.

The Lachrymal Glands at Various Ages.—A. Goz (Inaug. Diss., Tübingen, 1908), has made an exhaustive study of the human lachrymal glands in male and female of various ages. The tissues were fixed in concentrated sublimate or in formalin; paraffin sections stained in iron hematoxylin and Delafield's hematoxylin and benzopurpurin B. Age bears a direct relation to the size and structure of the glands. The largest were found in women of about middle age. The size of the glandular epithelium decreases after the first year, producing a widening of the glandular lumen. In advanced age there is an increase of connective tissue and an invasion of the glandular substance. It is not uncommon to find in the aged the glandular tissue thus split up into a number of islets but normally glandular degeneration from this source does not occur. The lachrymal glands of the female have a larger average size and weight than those of the male.

REMOVAL OF AN EMBOLUS FROM THE COMMON ILIAC ARTERY, WITH RE-ESTABLISHMENT OF CIRCULATION IN THE FEMORAL

JOHN B. MURPHY, M.D.
CHICAGO

Patient.—Mrs. H. S., aged 41, was admitted to Mercy Hospital at 1:40 p. m., April 29, 1909.

Family History.—Father alive, well, aged 77; mother died at 42 of pulmonary tuberculosis.

Personal History.—The patient was born in Germany and came to Chicago twenty-five years ago; married at the age of 26; habits good; used no alcoholic liquors. Menstruation began at 14 and was until one year previous of the regular twenty-eight-day type; lasted four days; quantity moderate. In the last year the patient had had seventeen periods; flow scanty; last menstruation March 8, 1909; diminished in quantity. She had one child 9 years old; forceps delivery; was confined to bed five weeks; had cholecystic infection in the puerperium and was jaundiced for three months.

Previous Illness.—The patient always had good health up to about five years before the present illness, at which time she had acute rheumatism which lasted four weeks; she had a second attack two years later. The patient was not confined to bed in either of the illnesses and did not know that the endocardium or valves were involved. Following this attack she had shortness of breath and consulted a physician who said she had heart trouble.

Present Illness.—On April 25, 1909, the patient was seized with a sharp pain in the lower part of the left side of the chest and upper abdomen, which later extended down to the pelvis. It was considered pleuritis and the patient was given opiates. The pain continued in the lower part of the abdomen after that in the upper part had entirely disappeared, which would rather controvert the idea of a splenic infarct. On April 26, between 9 and 11 a. m., the patient became nauseated and vomited five or six times; did not have a chill and did not believe she had an elevation of temperature. One hour later both the left and right legs began to pain. A physician was called, and he gave a hypodermic injection in the left leg in the region of the pain. Both legs became cold and remained so until the following morning, when the pain in the right leg ceased and it regained its normal temperature. The left leg remained cold, was blue in the thigh and very pale and shriveled in the toes, foot and ankle. It was cold to midway between Poupart's ligament and the patella. There were large blue blebs scattered over the middle third of the thigh.

Examination.—At the time of admission to the hospital the pulse was 82, respiration 26, temperature not recorded. After the operation pulse was 76, temperature 98, respiration 26. At 4 p. m., April 30, pulse 84, temperature 98.6, respiration 28. May 1, at 4 p. m., pulse 82, temperature 99.2, respiration 26. A careful examination on admission showed that the patient had a mitral, direct and regurgitant murmur. Examination of blood showed 15,400 leucocytes; hemoglobin, 85 per cent. There was no pulsation in her left femoral artery. The upper margin of the area of demarcation that appeared then was about four inches below Poupart's ligament. The limb was undergoing dry gangrene, due to ischemia from arterial obstruction. The patient was immediately taken to the operating room and it was decided to remove the embolus that was occluding the iliac artery.

Operation.—(2:30 p. m., April 29.) The patient was placed on the table with the hip slightly elevated. Nitrous oxid was given for thirty seconds, while an incision four inches long was made downward from an inch above Poupart's ligament parallel to the femoral artery. It extended through the skin and connective tissue. The anesthesia was then stopped, the dissection continued and the femoral artery was exposed for a distance of 2½ inches. It was edematous, easily freed from neighboring structures and two provisional catgut ligatures were thrown around it with an aneurism needle but were not tied. These were used

preference to the Crile clamp so as to aid in elevating the artery, which was then incised for one inch parallel to its long axis. It was completely thrombosed. With a delicate forceps the clot (a bifurcated plug an inch and a half long) was drawn from below upward, when fresh arterial blood came from below, evidently collateral, through the femoral profundus. A finger was then placed on the lower end of the vessel inside the ligature loop, as shown in the illustration, so as to compress it and stop the return blood and still not injure the intima. With a delicate forceps I began extracting the clot from the proximal side; the artery did not empty. A delicate spoon was then introduced and more clot withdrawn, but no arterial blood came. Then a No. 6 soft catheter was introduced; it passed up a distance of seven and a half inches and was withdrawn filled with grumous, bloody débris, but no arterial blood followed. It was reintroduced but could not be forced through

Location of the clot and direction taken by the sound shown semi schematically.

a resistant body at that point. An ureteral catheter was then inserted; it met resistance at the same distance as before, but was forced through the thrombus and passed up nineteen inches, thus catheterizing the abdominal aorta. A small quantity of arterial blood followed its withdrawal. A uterine sound was then introduced. At a distance of seven and one-half inches it met resistance. It was forced a half inch farther, and on its withdrawal a large quantity of grumous, thrombotic débris came, but no arterial blood. It was pushed a little farther on and met a firm resistance. No blood followed its withdrawal. It was introduced for a third time, and with a little additional force at eight and one half inches it seemed to pass through into a free space. This was followed by an intense arterial flow, carrying with it a lot of embolic débris and fresh, bright blood. The arterial flow had then all the pressure and quantity of a normal femoral artery. The finger was then inserted in the ligature loop on the proximal side to stop the bleeding. With a fine silk suture on a full curved conjunctival needle a rapid continuous suture of the linear incision in the artery was made. On removing the digital pressure it oozed a little between the second and third stitches. Two additional supporting stitches at this point completely controlled the hemorrhage, and pulsation could be felt throughout the vessel. Unfortunately this operation was four days after the embolus was arrested in the common iliac just below the bifurcation of the aorta. The skin was necrotic and the limb cold to eight inches above the knee.

Postoperative History.—After the patient was removed to her bed she complained of pain and burning in her toes and ankle, the first sensation she had had in any of those parts since the onset. Considering the ease with which this clot was removed from the second inch of the common iliac artery, it is very much to be regretted that operation was not performed early in this case and in all of these cases. The operation was done without an anesthetic practically, and can be done painlessly with a little cocain or salt solution injected into the skin. The collateral circulation was evidently making a great effort to establish itself, for as soon as I removed the plug from the junction of the deep and superficial femorals in the lower portion of Scarpa's triangle, the blood returned from the distal side. The suture of an incision in an artery is as simple as the suture of an intestine, if a sufficiently small needle be used. This I demonstrated in 1896, at which time I made the first successful end-to-end union of an artery that had ever been made, excising half an inch of the femoral artery at about the same point where I incised it to-day. At the line of demarcation the circulation was improved immediately after the re-establishment of the flow, becoming well marked a considerable distance lower; the amputation was made four days later four inches below the line of bleb formation that existed at the time the embolus was removed, and the flap survived. The circulation in all the smaller vessels at the line of amputation was fairly well established, but the trunk of the femoral was occluded by a loose, non-adherent clot, showing that it was the result of the suppression of the circulation from below or backing up of the blood which caused the thrombus, and not an inflammatory condition.

In cases of aseptic embolism immediate removal by division of the artery at the line of the embolism or below it should be resorted to. These emboli produce mere mechanical obstruction and the circulation is at once re-established by their removal.

The symptoms which indicate the occlusion of a large artery are, first, pain; second, ischemia of the limb; third, cooling of the surface; fourth, absence of pulsation in the arterial trunk. The number of hours that may elapse before a tissue becomes incapable of restoration has not been definitely determined, but from the length of time a constrictor may be kept on a limb for the suppression of hemorrhage and the vitality of the limb restored, we know that many hours of complete suppression of the circulation is not incompatible with restoration of the life of the tissues.

Since 1896 I have had two additional end-to-end sutures of arteries, one of the femoral in Scarpa's triangle for a bullet wound, and another of the first portion of the axillary just below the clavicle. In both end-to-end union was effected by my suture method and the circulation in the extremity promptly restored. A little over five years later all three of these end-to-end unions were examined by Dr. Neff and the circulation in the extremities was found perfect. I have also had a lateral suture of the external iliac and axillary arteries with good results. In September, 1908, a successful end-to-end anastomosis was made of the femoral artery into the femoral vein for endarteritis obliterans.

Since I published my original experiments and results in this line and demonstrated the feasibility of this work, Payr, Hoeffner, Exner, Ullman, Carrel, Guthrie and others have supported the practicability of arterial suture and demonstrated that extremities and organs can be transplanted and the circulation maintained, if accurate suture of the arterial and venous trunks is made. The transplantation of organs must adapt itself best to embryologic ectodermic and endodermic glands, as their function is essentially a cellular one and not materially dependent on nerve supply, just as in horticulture the product of the graft depends on the "epithelial" cells in the bud, and these are maintained through nutrition derived from the engrafted trunk, the "epithelial" cell producing its normal or physiologic product.

In the removal of septic infarcts there is little to be gained in a practical way, as they are usually multiple. With the infarcts resulting from acute or chronic vegetations on the cardiac valves, good results should be obtained. Even cerebral ischemia should be amenable to this treatment, when due to an embolus arrested in the common or internal carotid by opening the common carotid and aspirating through a catheter; or a subclavian clot by incision of the axillary artery.

I believe that aspiration through a catheter is a better means of removing the plug than the one which I adopted. If the catheter is divided on the slant with its end open it can be readily introduced into the artery; unless the embolus is extremely hard it can with suction be drawn into or fragmented by the catheter and thus the artery freed.

Incision into the artery at the seat of arrest of the embolus, if it has been there for any length of time, is not an advisable procedure, as I found in my experiments that when a thrombus rested any considerable time on the intima it roughened it and increased its tendency to subsequent thrombosis. Therefore, the artery had better be divided above or below (preferably the latter) the point of impaction of the embolus. A gradual occlusion of the circulation does not produce gangrene in the extremity. In the British Museum are specimens showing that in gradual occlusion of the thoracic and abdominal aorta by cicatricial masses an abundant collateral circulation was developed sufficient to compensate for the occluded artery. It is the sudden ischemia that causes the gangrene.

The curved needle of the conjunctival type, which has its cutting edge easily rubbed off on a whetstone, is a good type of needle for deep work. A straight needle is difficult of insertion, and an "extremely fine needle" is not a *sine qua non* to arterial suture. After the removal of the Crile clamp or the digital compression there is often considerable oozing through the stitch holes. A gauze compression for thirty or forty seconds will completely stop all this bleeding. Silk should be used and not animal suture, as a clot rapidly forms around the silk, plugging the stitch hole.

The diagnosis of embolism of the mesenteric artery has never been made early enough to have this procedure available as a life-saving measure, but let us hope. Here, as in other types of emergency surgery, the operation must be timely in order to be successful. This applies particularly to the cerebral ischemias. The removal of an embolus from the pulmonary artery by Trendelenburg, while it terminated fatally, deserves special mention.

100 State Street.

Clinical Notes

FAVUS TREATED BY BACTERIAL INOCULATIONS

PRELIMINARY REPORT OF A CASE

G. A. PERSSON, M.D.
MOUNT CLEMENS, MICH.

This case of tinia favosa is perhaps particularly interesting, because, so far as my knowledge goes, there is no case of favus on record in which the opsonic treatment has been used.

Patient.—When the patient first came to my office, which was about Oct. 3, 1908, he presented a classical picture of the disease. The eruption, which is shown in Figures 1 and 2, was very extensive. The lower extremities were affected in the same proportions, particularly below the knees. The nails on both fingers and toes were also involved, which gave the patient continual annoyance. The characteristic "mouse" odor was evident. The patient's general condition appeared about normal. For twenty-three years he had suffered continually without any relief, except for very short periods of slight improvements during the first three years of the disease.

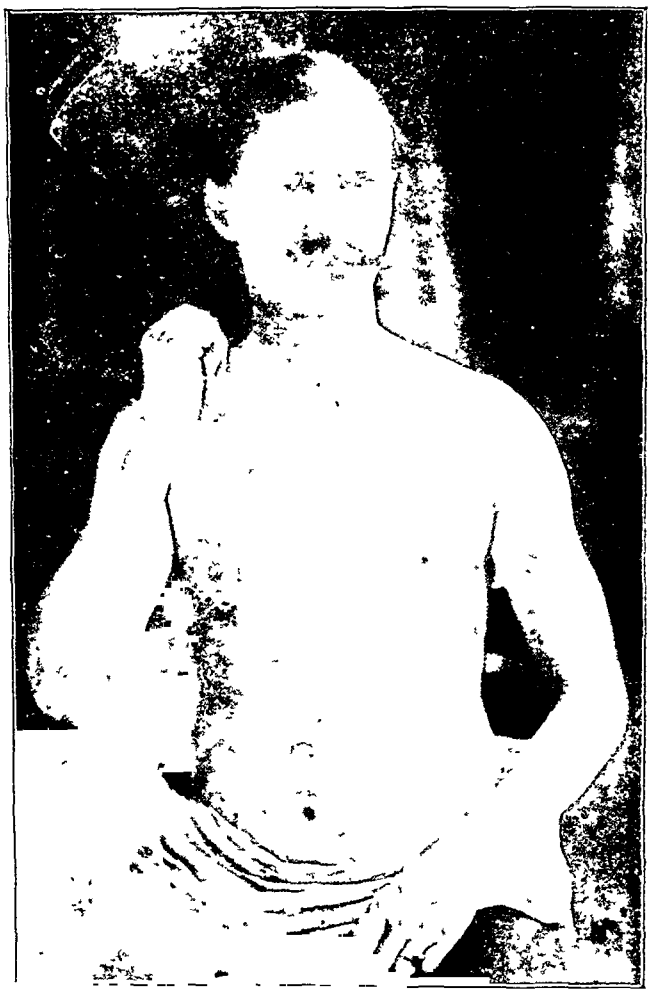


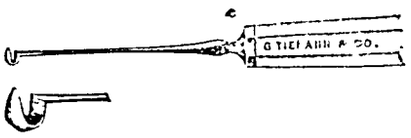
Fig 1.—Patient with tinia favosa, from photograph taken before beginning of treatment.

Examination.—Microscopic examination of the scales revealed the presence of the *Achorion schonleinii*. It was decided to isolate the specific fungus of this disease and prepare a bacterial vaccine from it. A culture from the scales planted on agar and grown in the incubator for seventy-two hours gave the characteristic culture, microscopic examination of which revealed a mixed culture of the *Achorian schonleinii* and *Staphylococcus aureus*.

A CORNEAL CURETTE

JOHN M. WHEELER, M.D.
NEW YORK

The instrument shown in the accompanying illustration may be used for curetting the cornea in any condition in which curetting is indicated, but its chief field of usefulness is in the removal of foreign bodies. Both edges are ground sharp, and the end of the instrument is ground to a point which projects a little beyond the shank. The construction of the curette is such that in its use the field of operation is not hidden from the surgeon. Most foreign bodies can be removed from the cornea without difficulty with the cutting edge of the instrument, and the foreign bodies almost invariably



stay on the curette. Occasionally a small bit of emery or like material penetrates the cornea to such a depth that the use of a sharp-pointed instrument is indicated. For this reason a point is supplied on the curette, and in using this point the shank of the instrument acts as a guard, so that there is no danger of perforating the cornea in removing foreign particles.

On account of its safety this little instrument will appeal especially to the general practitioner who of necessity must often remove foreign bodies from the eye.

64 West Fortieth Street.

Therapeutics

CHRONIC BRONCHITIS

Forchheimer, of Cincinnati, thoroughly discusses this troublesome disease in the *American Journal of the Medical Sciences,* February, 1909. He believes that the patient who has marked exacerbations in cold weather or has a prolonged winter cough should, if possible, go to a warmer climate during the cold season. This is especially advisable in cases in which there is an intermittence of the bronchial catarrh during the warm seasons, because many times chronic bronchitis begins as a recurrent winter cough which persists, until finally, it becomes an all-the-year cough. Like all recurrent inflammations and neuroses, the more frequently it occurs or the longer that it has lasted, the more persistent is the condition, consequently, every effort should be made to prevent a prolonged winter cough.

Of course, the most frequent cause of such a recurrent cough is latent or more or less active tuberculosis, but chronic bronchitis without tuberculosis while not of common, is certainly not of infrequent occurrence. If there is any season of the year that is worse for such patients than any other, it is the windy, dusty period of early spring, when there is but little, if any snow in the Northern and Eastern United States, and when it is a little too cold to sprinkle the streets properly, or the city authorities are careless in not beginning the sprinkling of the streets early in the season. Dust is certainly an exciting cause of the bronchitis, and also such dust carries with it germs which easily produce infection, when deposited on mucous membranes that are so unhealthy as are the bronchial mucous membranes of these patients. Also, most of these patients become more or less debilitated by the cough and expectoration, and are susceptible to other infections, especially of the upper air passages.

It is too often forgotten in the treatment of chronic bronchitis that though the cough and expectoration is the most important symptoms and the one for which the patient desires treatment, a careful investigation into his general condition, and treatment aimed at his general health will cause more improvement than the administration of expectorants, either sedative or stimulant. Generally, however, some expectorant may be advisable. In this form of bronchitis, opium, or any of its derivatives, is rarely indicated as a sedative, as the cough is usually for the purpose of removing the secretion in the bronchial tubes, and a sedative, or anything that would diminish the irritability of the nerves so that the secretion would accumulate and not be expectorated, would be inadvisable and contraindicated. Also, ipecac, alkalies, and pilocarpin, mentioned by Forchheimer, are rarely indicated in chronic bronchitis. Ammonium chlorid for its stimulant action in causing the mucous membrane to secrete a healthy mucus may for a short time be of advantage, but should not be used too long, as it sooner or later causes nausea and disturbance of the stomach.

In certain cases, some of the aromatic expectorants as turpentine, benzoates, eucalyptol, and santal oil may be of benefit to the patient. Creosote or some of its many preparations may be of value, but most of these drugs, if administered for any length of time, cause indigestion, and, if there is any kidney disability, many of them are contraindicated.

Terpin hydrate is often the best and simplest drug to administer.

If an asthmatic condition be present with the bronchitis, potassium or sodium iodid becomes the best treatment.

Circulatory debility should certainly be treated. Strychnin alone will often do these patients good. Arsenic in small doses is sometimes of advantage.

Forchheimer believes that there is no doubt that some of the aromatic oils, when inhaled from proper inhalers, are of great value.

He also calls attention to the posture treatment when profuse bronchial secretion tends to remain in the bronchial tubes, and would gradually raise, little by little, the foot of the bed of such a patient, until the head is distinctly lower than the feet. He finds by experience that the first elevation of the bed at the bottom should be about two inches; later this may be increased to four or five inches. If there is one particular part of the lung where the secretion accumulates such a side posture as will facilitate the flow of this secretion toward the larger tubes and thus promote expectoration, may be adjusted by pillows or bolsters.

In fetid bronchitis, creosote, thymol, oil of eucalytus, or oil of pine inhalations are of benefit. Also the administration of creosote and of santal oil internally seems to be of benefit, but the more thoroughly the dilated bronchi are evacuated of their secretions by posture, the less odor will the expectoration have. Also, such patients with fetid bronchitis should, if possible, sojourn for some time in pine woods.

It should not be forgotten that these patients in some instances have combined with the necessary cough an entirely unnecessary one, a cough that raises nothing and is due to throat irritations, often to an enlarged and irritated lingual tonsil. Such a cough can be more or less controlled by the patient, if he is told that it is almost unnecessary, and may also be markedly helped by a few daily local applications of boroglycerid to the lingual tonsil. Soothing alkaline gargles will relieve this kind of a cough, which should not be treated by sweet, irritating, or nauseating expectorants.

Forchheimer well says that the best climate, or the best "cure," to which the bronchitis patient should be sent is determined by the individual condition of that patient. While one patient had best go to New Mexico, another had best take a sea voyage; while one needs circulatory and skin stimulation at some sanatorium or hot springs, another needs exercise and mountain climbing.

As Forchheimer suggests, and as has been pointed out by others, there can be no question that we do not frequently enough teach these bronchitis patients respiratory exercises.

Patients with some arteriosclerosis do well on small doses of iodid, given for long time. Other patients need sufficient daily exercise to cause profuse perspiration.

EPILEPSY

Lest too much reliance be placed on the administration of drugs in this disease, it is well for us to consider the statements made by Dr. William T. Shanahan, assistant physician at the Craig Colony for Epileptics, Sonyea, N. Y. (*The Dietetic and Hygienic Gazette*, March, 1909). He says that the three great essentials in the management of epilepsy are the diet, hygiene, and occupation, and that it is only after these have been arranged to the best possible advantage of the patient that medicinal treatment is to be considered.

To ascertain the best diet for the individual epileptic, the gastric and intestinal digestive powers should be thoroughly investigated, and to do this properly, the twenty-four hours' urine and the feces should be carefully examined. Such examinations, at least if several times done, will disclose many errors in metabolism, which may be prevented by treatment, management, or a radical change in the diet. The digestive system being made as perfect as possible, the toxins that so often are the instigators of epileptic attacks will not form, be absorbed, and circulate in the blood. Not only should the kidneys and intestines be made as nearly as possible perfect excretory organs, but the skin should be made as active as possible by massage and exercise.

Of course all epileptics should avoid alcohol, and often tea and coffee. Rich, greasy, highly seasoned foods, or indiscretions as to amount, should not be allowed to occur in the dietary of an epileptic, and special care should be exercised that the epileptic receives nothing but the freshest and most properly cooked food.

If, in spite of corrections in the diet, intestinal fermentation and putrefaction occur, the various culture preparations of lactic microbes may be administered, or yeast often acts to advantage in preventing such intestinal conditions. Radical changes in diet—from a mixed diet to a vegetable diet, or to a milk diet, or to a temporary buttermilk diet—may aid in eradicating the disturbance in the intestine.

Constipation should certainly never be allowed in epileptics, and drugs may be administered to prevent it, if must be, although of course it is best to prevent constipation by diet, exercise, and by drinking plenty of water. The best laxative, if one must be given, must be determined by the individual patient. If, in spite of ordinary laxative drugs or laxative treatments, the feces tend to remain long in the intestines, active catharsis with calomel or castor oil must be caused periodically. With such persistent constipation the advantage of the administration of sweet oil, and of the high injection into the colon of warmed sweet oil should be remembered.

Shanahan says that for the control of the epileptic seizures, bromin or its salts still hold an important place. He does not state which bromid he prefers, but sodium and potassium are probably the best. If plenty of water is drunk to make the skin and kidneys active, if the bowels move well daily, and if the skin is properly bathed, and good, healthy out-door exercise is taken, the disturbing symptoms of bromism will not develop, especially as the large doses once given have been found unnecessary. If salt (sodium chlorid) is more or less thoroughly removed from the diet, it has been found that the bromin salt, perhaps preferably sodium bromid, takes its place, and less bromid is needed to control the frequency of the epileptic seizures. Shanahan cautions not to stop suddenly the administration of large doses of bromids.

He also states that if the excretory organs of the patient are kept active, the condition of status epilepticus, or rapidly repeated seizures of epilepsy, will not occur; hence the prophylactic treatment is the best. Such a condition, however, being present, he says that chloral hydrate must be used; it is best given by enema and its retention may be aided by laudanum. He does not say how much is generally needed, but states that it should be used with caution, and exhaustion guarded against by the use of stimulants such as aromatic spirits of ammonia, and enemata of strong black coffee, at a temperature of from 100 to 105 F. If needed, he would also give physiologic saline solution intravenously or by hypodermoclysis, and if there is much cardiac depression he uses strychnin, digitalis, and strophanthus.

At the onset of the status epilepticus, gastric and intestinal lavage are often of value. Venesection may be used in plethoric cases, and lumbar puncture has been tried, but with only questionable success. If the epileptic seizures are rapid and severe, chloroform inhalations may be administered until the chloral has had time to absorb from the rectal or colon injection.

Of course in treating any individual epileptic, an attempt should be made to correct any physical disability that may be present. Adenoids and enlarged tonsils should be removed; decayed teeth should be cared for; eyes should be fitted with glasses, if they require it; hemorrhoids should be removed, if present; pelvic disturbances in females must be prevented, medicinally, if may be, or operatively if must be.

Shanahan does not speak of the disturbances of menstruation being a frequent cause of epilepsy in girls and women, nor of the advantage of the administration of thyroid both as an emmenagogue and as a preventive of nitrogen poisoning. It is a fact that many female epileptics may be greatly improved and even cured with general management and the proper administration of thyroid.

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[For other information see second page following reading matter]

SATURDAY, MAY 22, 1909

AORTITIS, AORTIC ENDOCARDITIS AND SYPHILIS

With the development of two new diagnostic criteria of syphilis, the Wassermann reaction and the finding of spirochetes, it has been possible to approach the so-called parasyphilitic diseases from a new ground, with the result of brilliantly confirming the conclusions previously reached by clinical observation. As the parasyphilitic affections are late manifestations or results of syphilitic infection, and for the most part not accompanied by definite syphilitic lesions, the search for spirochetes has not been of much help in their etiologic determination, since these organisms are usually found with difficulty in even the most typical lesions of the tertiary stage. With the help of the Wassermann reaction, however, it has been demonstrated that the relationship between syphilis and such diseases as tabes and general paralysis is fully as frequent as the clinicians have long believed, and if anything more so. The variations in the results obtained by the laboratory investigators who have applied the serum test to these diseases, are about the same as we have been accustomed to see reported by clinicians who were endeavoring to establish a relationship on the basis of clinical history and coexisting syphilitic manifestations.

Among the parasyphilitic lesions degenerative and productive changes in the aorta, with resulting aneurism or aortic insufficiency, have long presented problems to the pathologist and clinician of great practical as well as theoretic interest. Even Ambroise Paré, Morgagni and other early masters of medicine recognized that syphilis played an important rôle in the etiology of arterial diseases, but we owe especially to the work done under Heller at Kiel our present understanding of the characteristic features of aortic syphilis. Now it is generally recognized that fleshy nodular thickenings of the aorta, most abundant in the ascending part, and frequently extending to the aortic valves with resulting incompetence, are commonly of syphilitic origin, especially when they concern individuals in the prime of life. Microscopically, these lesions are found to involve chiefly the media and adventitia, consisting of foci of round cells in the vicinity of the vasa vasorum, while in the media may be found foci of necrosis which sometimes are typically gummatous in character. As a rule, the histologic features of these lesions are not such as to prove conclusively their syphilitic origin, and consequently the pathologists have discussed at much length the proportion of such aortic lesions that should be ascribed to syphilis, and the possibility of similar lesions being produced by the acute infectious diseases. It seems to be generally accepted, however, that the most usual cause of such changes in the aorta is syphilis, although it is possible and probable that they are not by any means specific evidence of syphilitic infection. In other words, their status is just about the same as that of tabes and paresis in respect to etiology. Mönckeberg found that of the reported cases of aortitis 33 per cent. showed positive evidences of syphilis, while in a further 44 per cent. other parasyphilitic affections coexisted. Chiari reported that of 27 cases of undoubted syphilis examined post-mortem aortitis was present in 16, and of 44 paralytics 21 showed aortitis, indicating that more than one-half of all syphilitics coming to autopsy show characteristic lesions in the aorta. Similar results have been obtained by clinical observation. In v. Strümpell's clinic of 24 cases, tabes and aortic lesions, chiefly aortic insufficiency, coexisted in 15.

For some reason the application of the serum test to aortic disease has lagged behind its use in the study of nervous cases, but the results that have now been obtained are fully as convincing, and perhaps even more valuable from the therapeutic point of view than the results in tabes and paralysis. Fränkel and Much first applied the Wassermann test to the blood from cadavers showing aortitis with aortic insufficiency, and in all the six cases examined the reaction was positive. Citron[1] has studied systematically, by the serologic method, with interesting results, all the cases of aortic insufficiency coming to Kraus' clinic in Berlin in the past year and a half. Although only 14 per cent. of all cases of uncomplicated aortic insufficiency gave definite, and a further 26 per cent. suggestive, clinical evidence of syphilis, yet no less than 62.6 per cent. gave a positive serum reaction.

The earlier attempts to locate spirochetes in the aortic lesions resulted for the most part negatively, so that the positive findings reported by Schmorl, Reuter and Benda were accepted with more or less skepticism in view of the possibilities for error that the degenerated aortic tissues offer to the searcher for spirochetes. However, now that Wright and Richardson[2] have reported the finding of structures morphologically identical with *Spirochæta pallida* in all of five cases of aortitis examined by them, there will be no hesitation in the acceptance of these positive findings by Americans who are familiar with the splendid technic of the Boston laboratory.

All the above findings taken together would seem to prove finally the importance of syphilis in the etiology of the nodular form of aortitis which is so frequently

1. Berl. klin. Wchnschr., 1908, xlv, 2142.
2. Boston Med. and Surg. Jour., 1909, clx, 539.

associated with insufficiency of the aortic valves. Indeed there seem to be relatively few cases of simple aortic insufficiency that are not due to syphilis, especially if we exclude those cases where there is a history of rheumatism. As the Wassermann test seems to have distinct value in indicating the activity of syphilitic lesions, there would seem to be an excellent opportunity for therapeutic advance in the treatment of aortic regurgitation when of syphilitic origin, as most of the uncomplicated cases are shown to be.

RELATION OF HUMAN AND BOVINE TUBERCULOSIS

We are approaching the end of the solution of a problem which for many years has been the subject of bitter controversy and during the past eighteen years has been the object of perhaps more extensive work than any other in medicine. The relation of human and bovine tuberculosis is a question of first importance and deserving the most careful consideration.

The investigations which have led up to the proof of he intercommunicability of the disease in man and cattle may be divided into three periods: first, those taking place before the publication, in 1882, of the discovery of the tubercle bacillus by Koch; second, those occurring between the time of the discovery of the tubercle bacillus and its differentiation into human and bovine types by Theobald Smith in 1896-1898; third, those occurring since the establishment of these two types.

During the first period, it was shown by direct experiment that cattle could, though with difficulty, be infected with tuberculous material of human origin; their resistance to the human virus is so great, however, that it is unlikely that the infection occurs naturally.

Evidence of infection from tuberculous cattle to man could not, of course, be sought experimentally, but numerous observers collected statistics which furnish much circumstantial evidence that not infrequently man is infected with the virus of bovine tuberculosis. Numerous cases were studied in which, among children especially, the disease was in all probability caused by consumption of milk from tuberculous cows. A smaller number of cases, but cases furnishing more conclusive proof, were those in which direct inoculation occurred, as in those cases where tuberculous lesions followed wounds received by veterinarians and butchers while handling tuberculous meat.

The evidence obtained during the second period, that is, after the discovery of the tubercle bacillus, differed but little from the preceding, except that the demonstration of the bacilli made the diagnosis more certain, and its cultivation in pure culture gave a greater value to the direct inoculation experiments in animals. This circumstantial evidence was so convincing that it would doubtless have served to bring about the observance of adequate precautionary measures had it not been for the spirit of controversy which existed.

The discovery of the two types of tubercle bacilli, human and bovine, made possible the solution of the problem. On the basis of this distinction the German commission, the British commission and a number of individuals have proved that bovine tuberculosis is communicable to man. In over 300 cases reported in the literature in which the determination of the variety of bacillus present has been made, bacilli of the bovine type have been found in over 60 cases, a little more than 20 per cent. This can not be taken as representing the true incidence of bovine infection in man, since in some of the series investigated cases were chosen in which it seemed especially probable that the infection was of bovine origin. The results indicate clearly, however, that bovine tuberculosis is a source of danger to man sufficiently great to demand rigorous precautionary measures against it.

To arrive at a more accurate knowledge of the incidence of infection with the bovine type of bacillus in man, a great number of cases of tuberculosis, including the various forms of the disease, must be brought under investigation.

It will be of great interest and importance to see if certain forms of tuberculosis are constantly associated with one or the other type of bacillus. It is already evident that the bovine bacillus rarely, if ever, produces pulmonary tuberculosis. On the other hand, it has been found in a considerable number of cases of cervical adenitis and tabes mesenterica, as well as in other forms of tuberculosis.

The bearing which the type of bacillus present in a given infection will have on the therapeutic treatment of the case is not yet clear. In most of the work which has been done on the immunization of cattle against tuberculosis, living but attenuated cultures of tubercle bacilli of the human type have been used; there have been a few experiments, however, which indicate that vaccinations with attenuated cultures of bovine bacilli are more potent to protect cattle than are the vaccinations with the human bacilli. This fact may become significant in the treatment of human tuberculosis. Although at present there is but little to indicate that tuberculins prepared from the two types of the bacilli differ essentially, yet individuals with tuberculosis who had received one kind of tuberculin over a long period of time without evident benefit sometimes show a definite and progressive improvement when a change is made to tuberculin produced by the other type of bacillus.

Whether this result depends on the type of bacillus present in the infection has not been investigated, nor have we enough evidence to say whether we should use the homologous tuberculin or vaccine or the heterologous ones, but in the present unsatisfactory state of the therapy in tuberculosis, advantage should be taken of these points if any advantage lies in them. Further investigations are required along these lines.

fessor of medical jurisprudence. The faculty then met and elected the following officers: Dr. Montague J. Lowry, president; Dr. T. Alexander Barber, dean; Dr. Nathan L. Clark, vice-president, and Dr. John R. Tackett, treasurer.

NEW JERSEY

State Society to Meet.—The Medical Society of New Jersey will hold its annual meeting at Cape May, June 23-25.

Society Meetings.—At the annual meeting of Mercer County Medical Society, held in Trenton, May 11, the following officers were elected: President, Dr. Charles H. Mitchell; vice-president, Dr. Gustave A. Schoening; secretary, Dr. Edgar L. West; treasurer, Dr. Irenaeus M. Shepherd; recorder, Dr. Charles J. Craythorn, and delegates to the state medical society, Drs. William S. Lalor, George N. J. Sommers, and Paul L. Cort, all of Trenton.——Salem County Medical Society, at its annual meeting, held in Salem, May 5, elected the following officers: President, Dr. John M. Summerill, Penn Grove; vice-president, Dr. George W. Fitch, Daretown; secretary-treasurer, Dr. Henry Chavanne, Salem; reporter, Dr. John F. Smith, Salem; censors, Drs. William H. James, Pennsville, Frank B. Harris, Canton, and Richard M. Davis, Salem, and delegates to the state medical society, Eugene E. DeGroff, Woodstown, and Lester H. Hummel, Salem.

NEW YORK

Site for Insane Hospital Again Opposed.—It is announced that the State Commission in Lunacy had chosen a new site for the proposed asylum at Farmington, L. I. With the announcement that an offer for property had been accepted, the same opposition that was raised in connection with the Grenvale purchase is met. The citizens of Farmington in a mass meeting filed a protest with the governor, the senator, assemblymen, and lunacy commission, against the location of a hospital for the insane at or near the village.

Bills Signed.—Governor Hughes has signed the following bills: Senator Platt's, providing that any person knowingly bringing a domestic animal suffering from an infectious or contagious disease into the state shall be liable to all damages caused by the spreading of such disease; Senator Raines', relative to quarantine for rabies, posting notices and providing a penalty for destroying such notices while they are in force; Representative Shea's, providing that the state shall pay 50 per cent. of the appraised value of an animal condemned for glanders; Representative Boshart's, giving the chief veterinarian of the State Department of Agriculture the same authority to quarantine on account of contagious diseases, as is now held by the assistant commissioners, and also providing for a more stringent labeling of articles termed in the agricultural law "concentrated commercial feeding stuffs," and Senator Newcomb's, rearranging the control of infectious and contagious disease hospitals in New York City as between the various city departments devoted to this work.

New York City

New Training School Opened.—The formal opening exercises of the New Bellevue Training School for Nurses were held April 28. The building is located between East Twenty-fifth and Twenty-sixth streets, and cost about $1,000,000.

Hospital Suspends.—The Brooklyn Memorial Hospital for Women and Children has been closed because the work of the institution has been so seriously handicapped by the lack of facilities. Arrangements are being made for the erection of a new structure which it is hoped may be erected in two years. The Memorial Dispensary which has been connected with the hospital has been removed to Sterling Place.

To Help the Blind.—The New York Association for the Blind recently gave a benefit at the Hippodrome where between five and six thousand dollars was raised. In connection with the entertainment was an exhibition demonstrating the various kinds of work that could be done by the blind. The association asks $100,000 as a permanent fund to carry on its work and already has $85,000 pledged on condition that the remaining $15,000 be raised.

Enlarge City Hospital.—Plans have been filed for the erection of a two-story and attic pathologic laboratory building as an annex to the Metropolitan Hospital, Blackwell's Island. The main floor will contain the offices, the museum and specimen room and a room for autopsies; the second floor will be fitted as a library and with laboratories for microscopical, chemical and bacteriological research, and also a special private laboratory for the surgeons and the attic will be fitted as a menagerie for animals for experimental use. The structure will cost $40,000.

United Hebrew Charities May Get Million.—The $1,000,000 left to the United Hebrew Charities on condition that an agency should make collections for the six charities and that the funds should be distributed among them by Louis A. Heinsheimer, is still in the hands of Alfred M. Heinsheimer, as several of the institutions refused to accept the terms of the will. A meeting was recently held at which a thorough canvass of the situation was made and a resolution was passed calling for the appointment of a committee to consist of one person from each of the six institutions and each of these to choose three additional persons. The testator desired this plan of cooperation in order to reduce the expenses of collection.

NORTH DAKOTA

County Medical Society Organized.—The Richland County Medical Society was organized at Wahpeton May 3. Dr. Martin W. Ivers, Abercrombie, was elected president; Dr. Robert H. Devine, Wahpeton, vice-president; Dr. Timothy O'Brien, Wahpeton, secretary; Dr. Louis W. Meckstroth, Wahpeton, treasurer, and Dr. Charles P. Spottswood, Hankinson, censor.

State Association Meeting.—The annual meeting of the North Dakota Medical Association was held in Fargo, May 11 and 12. The following officers were elected: President, Dr. John E. Countryman, Grafton; vice-presidents, Drs. Henry H. Healy, Grand Forks; N. Oliver Ramstad, Bismarck, and Louis W. Meckstroth, Wahpeton; secretary, Dr. Hezekiah J. Rowe, Casselton (reelected); treasurer, Dr. J. Dempsey Taylor, Minot (reelected); delegate to the American Medical Association, Dr. Victor H. Stickney, Dickinson; alternate, Dr. Zella W. Stewart, Grand Forks, and councilors, Drs. P. J. Artz, Jamestown; Charles McLachlan, New Rockford; R. W. Pence, Minot, and Edgar A. Pray, Valley City. Grand Forks was chosen as meeting place for 1910.

OHIO

Will Not Prescribe Liquor.—The Wyandot County Medical Society, at its meeting April 29, adopted a resolution that its members refuse to furnish prescriptions for intoxicating liquors until, after having made a personal examination of each patient, it is deemed that the stimulant is necessary.

Sanatorium Dedicated.—On May 1, the Brookside Sanatorium, Dayton, was formally presented to the local tuberculosis society by E. B. Markey, who, in his address, dedicated the institution to the cause of bettering the condition of unfortunate consumptives. Rev. William A. Hale delivered an address on the "Great Cause of Tuberculosis." The sanatorium is located within six miles north of Dayton, and the buildings consist of a two-story brick house, and several structures erected on plans approved by the International Tuberculosis Congress.

Cincinnati

Fresh Air Society.—At the annual meeting of the Fresh Air Society it was announced that the society expected to care for from 2,000 to 3,000 on its farm near Terrace Park, during the coming season, and a plea was made for funds for this purpose, for the painting of cottages, fitting up the dining room, and constructing cement walks, for all of which $1,100 is needed.

New Plans for Interne Examination.—A new plan for the examination of internes has been adopted in Cicinnati. Four hospitals consented to hold a single examination under the auspices of the staff of the Cincinnati Hospital, the successful candidates being allowed to select the hospital in which they prefer to serve, the selection to be made in order of rank. There were 23 who passed the examination, but as there were only 20 positions to fill, 3 will act as alternates.

PENNSYLVANIA

Personal.—Dr. and Mrs. William G. Miller, New Castle, will sail for Germany early in June.——Dr. Ernest L. Clark has been elected president of the Media Free Library Association.

Appropriations Cut.—Governor Stuart reduced in general the appropriations to the state and semi-state institutions recommended by the legislature. The appropriations to these institutions, however, are higher than they were two years ago.

Food Bill Approved.—Governor Stuart approved the Todd-Murphy Food Bill, May 13. The act is now in force, previous conflicting statutes being repealed thereby. This act permits the use of benzoate of soda and sulphur dioxid as preservatives. A long list of preservatives is forbidden by the act,

including boron compounds, pyroligneous acid, salicylic acid, formaldehyd, sulphate of copper, alum and many others.

Portrait of Dr. Agnew Unveiled.—On May 13, a portrait of the late Dr. D. Hayes Agnew was unveiled at Mercersburg Academy. The members of the Franklin County Historical Society and the medical societies of Mercersburg, Chambersburg and other towns in Franklin county attended the ceremony. The address was delivered by Dr. J. William White, professor of surgery in the University of Pennsylvania.

Tuberculosis Society Directors Elected.—At the annual meeting of the Pennsylvania Society for the Prevention of Tuberculosis, held in Philadelphia April 14, the following directors were elected: Drs. Howard S. Anders, Frank A. Craig, J. Clinton Foltz, Albert P. Francine, C. Lincoln Furbush, William D. Robinson, Jr., William C. White, T. Mellor Tyson, J. Willoughby Irwin, Henry D. Jump, and J. Gurney Taylor, Philadelphia, and Dr. Charles H. Miner, Wilkesbarre.

Bill Vetoed.—Governor Stuart has vetoed the Blewitt bill, which requires all state or other hospitals in the state receiving annual appropriations from the state to furnish to sick or injured firemen, either permanent or volunteer, caused by exposure or accident while in the performance of their duties, a private room or rooms, together with all medical attention, board and supplies, free of charge. The Governor said that there appears to be no occasion for such legislation, and that therefore the act is not approved.

Philadelphia

City to Give Milk to Babies.—The Department of Health and Charities is prepared to distribute free milk and ice to babies during the hot months of the summer. This is the first time that the city has undertaken to supply milk to the children of the poor.

Health Bureau Chief Resigns.—Dr. Alexander C. Abbott, chief of the bureau of health, has resigned his position to take effect June 1. He will devote his time to his work at the University of Pennsylvania and will have charge of the laboratory of hygiene and physiology.

Educational Tuberculosis Exhibition.—An educational tuberculosis exhibition by the Pennsylvania Society for the Prevention of Tuberculosis, was opened in the Auditorium of the Kensington Young Men's Christian Association, May 17, and will remain five days. Demonstrations are being given each day and preventive measures for combating the disease are being outlined.

Lectures to Mothers.—At a conference, May 13, between the Director of Public Health and Charities, and Mrs. Frederick Schoff, president of the Mothers' Congress, arrangements were made for a series of lectures to mothers on the care and treatment of infants. The lectures will be delivered in the public schoolhouses after school hours by the assistant medical inspectors and nurses connected with the health bureau.

WASHINGTON

First-Aid Equipment for Schools.—The Seattle board of education has ordered that first-aid cases, blankets and hot-water bottles be installed in all school buildings having domestic science departments. The cost of this equipment will be a little less than $600.

Hospital Notes.—Work will soon commence on the hospital to be erected by the Sisters of Charity between Jefferson and James streets and Seventeenth and Eighteenth avenues, Seattle. The building will be of steel brick and concrete construction, six stories in height, and will cost about $250,000. ——Physicians of Bremerton have raised $1,100 by popular subscription to purchase a site for a hospital for Kitsap county. The building proposed will cost about $7,000.——Plans for a three-story addition to the Hoquiam General Hospital to cost about $10,000, have been prepared, and construction work will soon be begun.——The Emergency Hospital, Seattle, on the fourth floor of the new Municipal Building, was officially opened March 31, when 19 patients were transferred to the hospital. About $125,000 has been spent on the new hospital, which is under the direction of Dr. James E. Crichton, commissioner of health, assisted by Drs. Frank S. Bourns and Inslee B. Greene.

WISCONSIN

Home for Consumptives.—Plans are being made in Milwaukee for the construction of an isolation hospital for consumptives at Wauwatosa, on a site purchased three years ago for $32,000. The principal building on the ground will be remodeled to conform to the modern ideas of open-air treatment, and eventually smaller cottages will be erected for the use of patients.

Personal.—Dr. Adelbert Schneider, Milwaukee, has returned from Europe.——Dr. Lawrence P. Mayer, Hudson, is seriously ill with septic pneumonia.——Dr. A. D. McKinley has resigned as house surgeon at the Johnston Emergency Hospital, Milwaukee, to become superintendent of the Fox Lake Sanitarium.——Dr. James W. St. John, Janesville, has been appointed fire and police commissioner.

GENERAL NEWS AND COMMENT

Vanderbilt Alumni Meet.—The alumni of Vanderbilt University Medical Department, Nashville, Tenn., will have their headquarters at Young's Hotel at Atlantic City during the meeting of the American Medical Association, and on June 8 a banquet will be given at the hotel at 8 p. m.

Meeting of Milk Commissions.—The third annual meeting of the American Association of Medical Milk Commissions will be held June 7, at the St. Charles Hotel, Atlantic City. The association now has a membership of 48 milk commissions. Proceedings of the 1908 session will be mailed in a few days.

Internists Elect.—At the annual meeting of the Association of American Physicians, held in Washington May 11 and 12, the following officers were elected: Dr. Henry Hun, Albany, N. Y., president; Dr. Frederick Forchheimer, Cincinnati, vice-president; Dr. George M. Kober, Washington, secretary; Dr. Solomon Solis Cohen, Philadelphia, recording secretary; Dr. J. P. Crozer Griffith, Philadelphia, treasurer, and Dr. Henry Sewell, Denver, councilor.

Gastro-Enterological Meeting.—The twelfth annual meeting of the American Gastro-Enterological Association will be held at Atlantic City at the Hotel Windsor, June 7 and 8. The addresss of the president, Dr. Julius Friedenwald, Baltimore, will be on the "Development of Gastrology," and in the evening of the first day a symposium on "Gastro-Enterostomy," participated in by Drs. W. B. Cannon, Fred T. Murphy, and Franklin W. White, Boston, Henry W. Bettmann, Cincinnati, and John M. T. Finney, Baltimore.

Laryngologists to Meet.—The thirty-first annual congress of the American Laryngological Association will be held in Harvard Medical School, Boston, May 31 to June 2, under the presidency of Dr. Algernon Coolidge, Jr., Boston. The entertainment includes a luncheon given by the Boston members to the fellows and their ladies and the president's reception on the first day; a luncheon given by the Boston members of the American Otological Society and the American Laryngological Association to visiting fellows and the annual dinner on the second day. On the third day the Otological Society and Laryngological Association discuss nasal and pharyngeal conditions as causative factors in aural diseases.

The Carroll Fund.—The following subscriptions have been received since the last report:

From Medical Officers of the Army	$ 20.00
Dr. F. W. Taylor, Paauilo, Hawaii	5.00
Medical Society, Sioux County, Iowa	11.00
Dr. A. de Bey, Orange City, Iowa.	
Dr. G. A. F. de Lespinasse, Orange City.	
Dr. C. de Jong, Orange City.	
Dr. A. L. Druet, Boyden, Iowa.	
Dr. N. G. O. Coad, Hull, Iowa.	
Dr. D. J. Gleusteen, Alton, Iowa.	
Dr. G. Marris, Hull, Iowa.	
Dr. F. L. McAllister, Hawarden, Iowa.	
Dr. C. S McCarthy, Hawarden, Iowa.	
Dr. H. D. Oggel, Maurice, Iowa.	
Dr. D. J. Werkman, Secretary, Hull, Iowa.	
Kansas State Medical Society, Columbus, Kansas	55.50
Dr. A. W. Hewlett, Ann Arbor, Mich.	5.00
Dr. Alex. C. Soper, Jr., Chicago	5.00
Dr. J. H. Carstens, Detroit	5.00
Ohio State Medical Society, Columbus, Ohio	112.00
Denver County Medical Society, Denver	35.00
Physicians Round Table of the Chicago Athletic Club,	20.00
	$ 273.00
Previously acknowledged	3,825.65
Total	$4,098.65

The sum of $3,326.50 is still needed to raise the mortgage on this property. Remittances should be sent to Major Ireland, care Surgeon-General's Office, War Dept., Washington, D. C.

Tropical Medicine.—The Far Eastern Association of Tropical Medicine will meet in Manila, P. I., March 6-14, 1910. The session will open at Manila. On the second day protozoology and helminthology will be considered: on the third day, cholera, plague and leprosy: on the fourth day, surgery, obstetrics and diseases of children: on the fifth day, fevers in the tropics, including malaria, typhoid, etc.: on the sixth day, dysenteries and beriberi; on the seventh day, the association will go to Baguio, Benguet, the summer capital of the Philippines, where tuberculosis, climate, hygiene and sanitation will be discussed,

and the business session will be held. Dr. Paul C. Freer, Manila, president of the association, is anxious to have a number present from the United States in addition to the contingent from the far East, and suggests that any who are intending to make a tour of the world eastward, to so plan their routes as to arrive at Manila in March, the best season, thus having January and February, the best months in the year for India.

FOREIGN

Prizes Offered by the Spanish Academy of Medicine.—The Academy of Medicine at Madrid offers a prize of $150 and a gold medal for the best works received on "Heart Failure" and "Infant Feeding." The works must be in Spanish, French or Latin, and be sent in anonymously before June 30, 1910. The secretary is D. M. Iglesias, Calle Mayor 6, Madrid, Spain. Among the other prizes offered are two for the best description of some epidemic in Spain which the writers have passed through, citing cases, treatment, etc., with a certificate signed by the *alcalde* or priest as to the writers' professional zeal and devotion during the epidemic. The Rubio prize of $240 is to be awarded for the most important work or discovery by a Spanish physician during the preceding two years.

LONDON LETTER

(From Our Regular Correspondent)

London, May 8, 1909.

Bequest for Surgeons Who Contract Blood Poisoning in Operating

Mr. George Smith, a dental surgeon of Newent, Gloucester, who died at the age of 77, made a novel bequest. He left the residue of his estate, valued at $58,000, after payment of certain legacies to the Royal Infirmary, Manchester, and University College Hospital, London, in equal shares, to be used for the benefit of the members of the surgical or dental staff who may be disabled by infection from puncture or who may contract blood poisoning while examining or operating on patients or making postmortem examinations.

Bequest for a Hospital Free from Socialist and Religious Control

A surgeon, Mr. John Kershaw, F.R.C.S., of St. Anne's-on-Sea, Lancashire, has left $250,000 for the erection and maintenance of a hospital on his Sunfield estate at Royton, a cotton district in Lancashire. The hospital is to be absolutely free to all who seek treatment. No inquiry is to be permitted as to the means or religious belief of the applicants and no minister of religion nor any socialist is to be an officer of the hospital.

Early Diagnosis of Cancer of the Uterus

At the 1907 annual meeting of the British Medical Association the Section of Obstetrics and Gynecology adopted a resolution requesting the council to appoint a committee to consider the best means of disseminating knowledge of the importance of the early recognition of cancer of the uterus. The committee presented a report which was considered and generally approved by the same section in 1908. At a meeting held on April 28 last the council approved of an appeal to doctors, midwives and nurses to promote the earlier recognition of uterine cancer and directed that this should be communicated to British and colonial medical and nursing journals. The appeal is a lengthy document in which the early diagnosis of the disease is minutely discussed. Its curability by operation in the early stage is emphasized. It is pointed out that the early symptoms are irregular bleeding of any description, even if only in traces—bleeding postcoitum and watery, blood-tinged discharge. There may be no loss of strength or other symptom.

Sir Almroth Wright on Immunization Against Disease

Sir Almroth Wright was entertained at a dinner given in his honor by the Authors' Club, where he delivered an address on "Immunization Against Disease," which was listened to with great interest by a distinguished audience. He contended that our civilization was by no means as complete as we were wont to think. We had not yet come to appreciate the rôle of bacteria, which were among the newly discovered things of the world. We thought we had conquered them by our sanitation, but we had only been fighting against a small portion of them. We had got the better of smallpox, typhoid and dysentery, which now killed very few people in England. But the most serious ills of life now produced by bacteria were not epidemic diseases, but chronic diseases. Everybody was the subject of, or was going to be the subject of, bacterial disease. These forces would have to be got under control before we could consider our civilization complete. The triumphs of antiseptic surgery were great, but no drug had been discovered capable of killing microbes in the interior of the body. The modern method of immunization began with inoculation against smallpox, which was superseded by the discovery of vaccination. Pasteur devoted his life to the extension of this discovery—immunizing against disease. His name would be associated with prophylactic and phylactic inoculation. The next step was comparatively small. Given a localized disease, such as a boil, by phylactic inoculation, Sir Almroth had found that he could stir up the machinery of immunization and so cure it. Gradually he had applied this principle to other diseases. His conclusion was that given a localized disease and knowing the infective organism, immunization by a vaccine was always possible. In Sir Almroth's opinion, that would ultimately be the treatment of bacterial disease.

PARIS LETTER

(From Our Regular Correspondent)

Paris, May 6, 1909.

The Reform of Instruction Question

The Association of Members of the Teaching Corps of the Faculties of Medicine, whose foundation I chronicled in a previous letter (The Journal, April 10, 1909, p. 1192), at its first general assembly occupied itself with the question of the *agrégation*. The assembly discussed the question whether the test of admissibility should be by examination or by *concours*. The second solution (*concours*) was decided on by 156 votes against the 52 cast for the project of an examination conferring certificates. The assembly endorsed the position taken in the report of Professor Grasset of Montpellier, viz.: 1, that the admissibility, instead of being a degree or a definitive title, consisted only in a temporary right to the *concours*, limited to the three *concours* following the admission; 2, that the admissibility confers on those who have obtained it no other privilege than that of presenting themselves at the *concours* for admission to the *agrégation*, and does not allow them to be named without a *concours* for the posts of chief of clinic, substitute professor, etc., in the faculties and schools of medicine. The association of members of the teaching corps unanimously pronounced in favor of maintaining the *agrégation*, and of permanent tenure of the post of *agrégé* (at present the *agrégés* are appointed only for a period of nine years).

The Struggle Against Infant Blindness

The minister of the interior has issued to the prefects an important circular relative to the measures to be taken for the prevention of infantile blindness. Notwithstanding that the number of cases of ophthalmia neonatorum has sensibly diminished during ten years, much yet remains to be done in this field. The circular refers to the decree authorizing pharmacists to furnish midwives with a 2 per cent. solution of silver nitrate for preventive instillation in the eyes of the newborn. It recommends the utmost publicity for the following notice: "If the child's eyelids are red, swollen, or glued together, if there is any trickling of liquid or of pus, you may be sure that it does not come from a draught, but from a serious disease. You should suspect ophthalmia, which may make the child blind, and should cause it to be immediately examined and attended by a physician that very day." Finally, the circular calls on the prefects to organize in their departments a medical service for the prevention in school children of the disorders resulting from neglected myopia. It also insists on the necessity for suitably equipping both in personnel and material the local ophthalmologic clinics.

A permanent investigating committee for the aid of the blind, instituted by M. Mirman, director of assistance and public hygiene, has been at work for three months at the ministry of interior, and M. Clemenceau informed himself as to the views of this committee before issuing the above mentioned circular to the prefects.

The recent inaugural thesis of Dr. Jules Vergne on eye inspection in schools, brings strongly into view the gravity of the disease and the necessity for combating it with energetic measures. The following figures are taken from the statistics given by Dr. Vergne: in a *lycée* of the department of the Cher, out of 275 pupils examined only 130 were found normal; in a communal school in Paris, 85 children out of 202 showed a perceptible diminution of visual acuity.

Myopia is generally held to be of school origin. If it were really such, the districts where the illiterates are most numer-

ous should furnish the least myopics. Dr. Vergne, however, found entirely the opposite conditions prevailing, when arranging by departments according to the rules of revision the list of young men exempted from military service for myopia. But if the school is not the primary cause of myopia, it is none the less true that the average of myopia increases from class to class. The sight of the children, then, should be the object of constant care, and it is to be wished that eye inspection should form part of the medical inspection of schools, as it has done for some time in England. Thanks to the happy initiative of certain specialists, like Dr. Baudry of Lille, Professor True of Montpellier, Professor Motais of Angers, this inspection is already in operation in a certain number of towns.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, April 28, 1909.

The Twenty-sixth Congress for Internal Medicine

The Congress for Internal Medicine met in Wiesbaden from April 19 to 22 under the presidency of the well-known clinician of Bonn, Professor Schultze. Nearly a hundred papers were announced and in spite of the fact that the special sessions were considerably prolonged, several members did not succeed in addressing the congress, on account of lack of time. Among the papers read the majority dealt with the circulatory system and metabolism. There is much activity in both of these fields at the present time in the German clinics, especially in those of Berlin, Munich, Heidelberg and Tübingen.

On the first day the only address was that of Prof. Magnus-Levy of Berlin, a young but meritorious investigator in the field of diseases of metabolism. He spoke on the subject of "The Metabolism of Mineral Substances in Human Pathology." Among the mineral substances calcium is of great importance for man, as its quantity varies in different diseases. In rickets there is present too little calcium; this does not depend, as was formerly believed, on the lack of calcium in the diet but on a disturbance of the function of the bone cells. Phosphorus, sulphur and iodin have a somewhat obscure relation to the human organism. On the other hand, of late years it has been shown that common salt has a very important influence. 15 to 20 gm. of sodium chlorid, which is usually the amount taken daily by healthy people, are excreted from the system within twenty-four hours. On the other hand, it has been shown by Widal of Paris and H. Strauss of Berlin that when the excretion of salt in patients with diseases of the kidneys diminishes dropsy occurs. On this fact Widal founded the treatment of nephritic dropsy by restriction of salt in the diet and clinical experience has shown that good results are obtained by this method in many cases. In other diseases also salt is influential in the treatment as for instance, in diseases of the circulatory system, and it has been shown that in the treatment of epilepsy by bromids after salt is excluded the action of the bromids is increased. Finally in nutritive disturbances of nurslings, it has been shown by the investigations of the Berlin pediatrician Finkelstein that fever with loss of albumin and fat may be produced by sodium chlorid and disappear on the withdrawal of that substance; eczema may arise from the same cause. On the conclusion of Magnus-Levy's address, Widal of Paris explained his method of "dechloruration" in disease of the kidney. How large an amount of salt is harmless to the patient must be determined in every case as from ½ to 2 gm. a day are sufficient in many cases to make the food palatable. It is not necessary to give the dropsical nephritic patient an absolute milk diet, but a mixed diet may be given if the amount of salt is reduced to a proper degree. A number of other speakers, especially H. Strauss of Berlin, Bickel of Berlin and Gerhardt of Basel, discussed the subject of metabolism of mineral substances, but there is nothing special to note regarding their addresses.

Great interest attaches to the address of Professor Lenhartz of Hamburg on the third day regarding the treatment of gastric ulcer. For several years Lenhartz has departed from the Leube method and gives on the first day of treatment, even immediately after the cessation of hemorrhage, eggs and milk by the mouth. The hyperacidity which accompanies the ulcer is diminished by the albumin of the egg which combines with the hydrochloric acid and medicines for neutralizing the hydrochloric acid are unnecessary. The pain is also relieved by this diet, so that bismuth and morphin are not needed. As the patients are sufficiently nourished from the first day they are not so much reduced as by the ordinary method and there is less danger of death from asthenia which is likely to happen after severe bleeding. The patient can leave the bed much sooner than usual. In order to compensate for the hemoglobin lost by hemorrhage Lenhartz gives his patient iron pills (Blaud's pills?) which are well borne according to his experience. In the discussion Leube spoke first. Notwithstanding the fact that the results of his many years' experience demonstrated the satisfactory character of his method of treatment, he concludes that one is justified from the communication of Lenhartz in putting patients on a solid diet sooner than heretofore; but for the first days of treatment the nutrient enemata are to be continued especially after hemorrhage. Most of the other speakers, v. Müller of Munich, Moritz of Strassburg, Gerhardt of Basel, Fleiner of Heidelberg, Krehl of Heidelberg, etc., took an intermediate view, but confirm from their own experience the claims of Lenhartz. Fleiner, however, adheres to the old plan of the Leube treatment in its entirety.

On the third day of the session the well-known London neurologist, Head, opened with an address on the subject, "Sensibility and the Testing of Sensibility." Head studied the disturbance of sensibility arising after section of the sensory nerves of his own left forearm, according to the methods developed by him and especially made a comparison of the disturbance during and after the regeneration of the nerves with those disturbances already determined. The details of this investigation must be omitted for lack of space.

From the great number of other papers I give only a brief notice of a few. The clinical significance of the electrocardiogram was much discussed and its value for the diagnosis of disturbance of the heart function was thoroughly recognized. Professor Hoffmann of Düsseldorf was of the opinion that the curves did not indicate the functional capacity of the heart but only the irritability of the heart muscle. Examination of the heart, lungs and digestive organs by the *x*-ray was demonstrated. Professor Goldscheider of Berlin described his method of graduated percussion of the lungs, with which he claims to have obtained better results than with the ordinary loud percussion. Professor Pässler of Dresden has carefully observed the condition of the mouth in certain affections which run their course with the picture of general intoxication and found that purulent affection of the pharyngeal tonsil or the teeth was the cause. By appropriate treatment of these organs the general symptoms were relieved.

Plesch, of Budapest, an assistant of Professor Kraus of Berlin, has devised a method by which it has been determined from the respired air that 4.5 liters of blood circulate in the body every minute and that 60 c.c. of blood are expelled from the cavities of the heart at each contraction. The blood moves with a velocity of 50 cm. in a second. A complete course of the blood through the body occurs in 55 seconds with 65 pulse beats. The heart performs in a minute the work of 14 meterkilograms; it is eight times better supplied with blood than the rest of the body. In anemic people the amount of blood circulating to a minute is raised to 20 liters. The heart of a healthy man in 60 years performs 350,000,000 meterkilograms of labor and expels from its cavities 2,800,000,000 liters of blood into the circulation.

Curschmann of Mainz draws attention to the fact that in threatened uremia in consequence of kidney disease the tendon and skin reflexes are markedly increased, a fact that may be of diagnostic importance. O. Müller, of Tübingen, from his investigation on the digitalis bodies, draws the conclusion that these preparations act only on the heart and not on the peripheral blood vessels. v. Tabora, of Strassburg, recommends in case of an overloading of the venous system, either a full venesection or to encircle the limbs with an elastic band, so that the blood may be temporarily excluded from the circulation. Schottelius reports favorable results from the treatment of dysentery with an antitoxic serum.

The next congress will be held in 1910, again in Wiesbaden. The president is Professor Kraus, of Berlin.

Work of the Berlin Medical Inspectors of Schools

Each school physician is required to visit quarterly each school placed under his charge. In the report of the president of the association of Berlin school physicians, which recently appeared, a protest is made against the use of a common drinking glass as, especially during the prevalence of an epidemic, there would be danger of conveyance of disease. The school carbonic acid baths are very much liked. Instruction in swimming is given to pupils without charge. The misuse of alcohol has markedly diminished among the school children and now affects only a very small portion of the pupils. To obviate the disadvantage in sitting still during the classes a free movement is permitted in the ten-minute recesses.

Pharmacology

POSLAM

W. A. Puckner and W. S. Hilpert

[Contribution from the Chemical Laboratory of the American Medical Association.]

A number of inquiries having been received regarding the composition of "Poslam," the preparation was examined in the Association's laboratory. It is evident, from the letters received, that this nostrum is widely advertised. As physicians are likely to be questioned by their patients as to the therapeutic value, or lack of value of "Poslam," it is desirable that they should be in a position to express an intelligent opinion on the subject.

EXAMINATION OF THE PRODUCT

The preparation is found on the market in small three-quarter ounce "trial" tins, and in 5½ ounce jars bearing the name "Poslam," and the name of the manufacturers, "The Emergency Laboratories, 32 West Twenty-fifth street, New York City," with descriptive matter, in which it is stated that "*the success of Poslam in the cure of eczema and all kindred skin diseases has been absolute. . . .*"

Poslam as examined in the Association laboratory was found to be a gray ointment of the consistency of petrolatum and possessing an odor of oil of tar. Qualitative examination demonstrated the presence of zinc oxid, sulphur, starch, tar oil, menthol, salicylic acid and a fatty base, probably petrolatum. From the results of quantitative estimations[1] it was concluded that the composition of Poslam was essentially as follows:

Zinc oxid	12.01 parts
Sulphur	6.67 parts
Corn starch	22.00 parts
Tar oil	15.18 parts
Menthol, Salicylic acid	Small quantity of each
Fatty base q. s.	100 parts

From the results of the analysis it can be seen that the preparation depends for its action on *such simple remedies* as zinc oxid, sulphur and oil of tar. These have long been used and known as *more or less effectual remedies* for the treatment of skin affections, but certainly do not warrant such claims as are made in the advertising matter sent out with poslam stating it to be "The newest medical discovery for the treatment of eczema and all other skin affections" and " . . . entirely *different from anything yet used* . . ."

ANTINEURASTHIN

A New Use for Eggs and Milk

A *German nostrum known* as "antineurasthin" has been given—for a substantial consideration—many columns of space in British newspapers. This "cure for nervousness" is an "epoch-making discovery" of one Dr. Hartmann. According to the *Pharmazeutische Zeitung* the firm of "Dr. Hartmann" is one of a group of quack-medicine manufacturers against whom the chief of the Berlin police issued a public warning. The commercial possibilities of antineurasthin having thus received a substantial setback in the *paternalistic Fatherland*, the business, it appears, was transferred to Germany's more *laisser-faire* western neighbor across the North Sea, and we understand is about to appear in this country also.

THE ANALYTICAL "REPORT"

In any event antineurasthin has been heavily advertised as the cure for the "Twentieth Century Disease," and as a remedy that "directly combats the brain-cell and nerve-ganglionic cell degeneracy," whether this sad state of affairs is "due to overwork or mere malnutrition"! Testimonials of the most approved type and an elaborate "report" from an "analyst" with a long string of high sounding titles form part of the stock-in-trade. The editor of *London Truth*, having had occasion to pay his respects to this nostrum, was partic[illegible] struck by the positiveness of the statements [illegible] in the published "report" of this particular "analyst" regarding the virtues of antineurasthin; they read "a good deal more like the work of an advertisement-writer than that of a man of science." For instance, the "analyst" states in his report:

> "Antineurasthin" does not only "relieve;" it cures by "feeding" the attenuated nerve cells, and thus after awhile, restored to their normal energy and vital powers, they are able to perform their brain and tissue-renewing functions again without external aid.

It is rather unusual for a chemist to express an opinion like the foregoing, on the medical properties of a preparation, based merely on a laboratory analysis. *Truth* sent a representative to the "laboratory" and found that it consisted of some rooms "somewhere upstairs" in the private house at which the "analyst" lodged. The "analyst" himself was not at home and all the landlady could tell about the "Chemical and Physical Laboratories" was that her lodger had "a quantity of bottles" and other paraphernalia in his apartment, "with which he occasionally made appalling smells."

WHAT IS ANTINEURASTHIN?

As to what this "cure for nervousness" is, there seems to be a difference of opinion. According to the manufacturer:

> Antineurasthin itself is a scientifically compressed compound of the Myelinic (or Lecithinic) elements of certain costly foods, especially rich in this valuable brain-building constituent of the best of our daily foods.

But the *British Medical Journal*, which had the stuff analyzed suggests that the composition of this marvelous renewer of brain energy is approximately as follows:

Dried yolk of egg	3.8 per cent.
Dried white of egg	5.4 per cent.
Dried separated milk	57.8 per cent.
Gum	2.0 per cent.
Potato starch	22.7 per cent.
Moisture	8.3 per cent.
Aromatic substances	Traces

> The daily dose of four tablets or 122 grains would, according to this formula, contain the equivalent of 10 grains of yolk and 43 grains of white of egg (not dried); the ratio between these is about the same as exists in an average egg and the two may be put together and regarded as about a teaspoonful of fresh egg; in addition the daily dose would represent about 2 oz., or a quarter of a tumblerful, of separated milk and a little starch.

In extolling the "lecithinic elements of certain costly foods" of which its product is said to consist, one wonders whether the Antineurasthin Company is guilty of a subtle joke in thus referring to the outrageously high price of hen's eggs during the past winter! As to the ethics of selling eggs and milk under a fancy name and for a still more fancy price, as a cure of nervousness, we can not do better than quote from the article in *Truth*, already referred to, and which bears the caption, "Hens' Eggs and Nerve Trouble."

"What the public should understand, however, is that most preparations of this kind are based on some remedy, the efficacy of which in certain cases is well-known. In this particular instance the remedy seems to be yolk of egg. The great discovery of Dr. Hartmann converts the domestic hen into a rival of the goose that laid the eggs of gold. The *modus operandi* is worth the attention of poultry farmers. You dry your hens' eggs; you mix them up with plenty of starch, separated milk, or other harmless ingredients; you get a few imposing testimonials and reports from parties who deal in such articles; you engage a smart advertisement-writer, prime him with a little fact and a great deal of scientific jargon; you rent as many pages or columns in the press as you can afford; and your hens' eggs hatch out into handsome dividends. The Twentieth Century Disease, however, goes on as before. My own impression is that quite the worst disease of the twentieth century is the disposition to swallow excessive quantities of preparations of this character, and equally excessive quantities of the newspaper advertisements relating to them."

[illegible] **Examination in Children.**—K. H. Goldstone advises ex[illegible]ion of the eye fundus in any child who after the fifth [illegible] fails to hold up its **head**, who does not grasp objects, [illegible] whom [illegible] is **present**. He believes that amaur[illegible] **rare as** was formerly thought.—

Miscellany

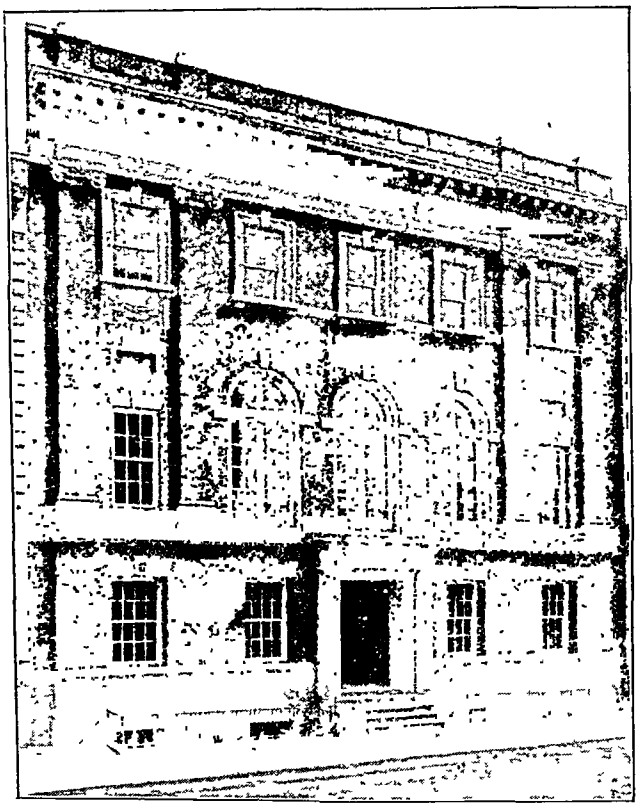
The New Building of the Medical and Chirurgical Faculty of Maryland

The new building of the Medical and Chirurgical Faculty of Maryland, noted editorially in THE JOURNAL, May 15, p. 1580, is the first to be erected by a state medical society in the United States and will be a suitable meeting-place for the society as well as a safe depository for the new library. The dedication will be reported in connection with the state society meeting.

For many years the Medical and Chirurgical Faculty of Maryland has been housed in an ordinary three-story dwelling-house where the meeting halls were too small and the book shelves overcrowded. The contributions for the building have been made by members of the society and public-spirited citizens both toward the general building fund and also to a separate fund contributed as a testimonial to Dr. Osler. In addition, the General Assembly of Maryland, in 1908, voted a donation of $12,500.

The building is the result of much study, both of the needs of such a building, and of other libraries. The chief feature that the committee had in view was to combine a medical building for a meeting-place for the members of the society and for instructive lectures to the public, and an endeavor was made to have the meeting rooms confined to the first floor. The second feature was to have a quiet place for reading where there would be little or no noise or confusion. The book stack is unique in that very little light from the outside has been permitted, there being only a few small windows, so that the books are protected from the action of light.

The property on which the library stands has a frontage of sixty-six feet on the east side of Cathedral street between Preston and Biddle streets, and runs through to Maryland avenue with a depth of two hundred and forty-six feet.



The new building of the Medical and Chirurgical Faculty of Maryland.

The building itself is a fire proof construction of reinforced concrete and brick, having a facade of about 50 feet in height, with a pilaster treatment above, and a basement story on the street level. The treatment is of the Georgian or English colonial type of architecture executed in granite, limestone, terra cotta and brick; the brick work is laid in Flemish and English bond. The entrance to the building is through a vestibule with a marble base and architraves, to the main corridor leading to the stairs and principal rooms. On the right on entering there are two rooms that will be used by the registry for nurses under the direction of the Maryland Association for Nurses. On the left is a room dedicated to the late Dr. Aaron Friedenwald, handsomely furnished in oak and brown leather, and to be used as a conversation room. Back of this is a small meeting hall, with a seating capacity of about 150. Again on the right are the committee, cloak and toilet rooms, and a handsome stairway of solid masonry with marble steps and mahogany handrail, with a wrought iron balustrade, and well-lighted by a skylight and windows.

At the end of the corridor, opposite the front door, is the main auditorium, having a seating capacity of 500, well-lighted by windows at the back and by a large skylight in the vaulted ceiling. The two halls are so arranged that the two may be used together to accommodate unusually large audiences.

The basement of the building contains ample space for the storage of books, manuscripts and reports, and also has a shipping and receiving department; and contains the heating apparatus. Connected with the basement corridor through wide glazed doorways is a supper room of ample size, equipped with kitchen and pantries.

On the second floor of the building extending across the whole front is the main reading-room, known as the "Frick Room," having a high ceiling with beams and an elaborate cornice and wainscot of green material trimmed with mahogany, with a handsome fire place and mantel at one end of the room and a gracefully arched alcove at the other. This room is furnished in mahogany, with easy chairs, writing tables and other conveniences for the use of the readers. Opening from this room is the periodical room, and back of this the librarian's office, and between this and the book stack is the cataloging room.

The back of the main building, which does not include the principal auditorium mentioned above, is given up to the stack room, which is designed after the most modern models, is fitted with the best Snead metal fireproof stacks and has a capacity of 70,000 volumes; it can be entered only through a fireproof door from the cataloging room and is practically a solid vault of concrete, brick and steel.

On the third floor are five large rooms, one of which will be used for a clinical laboratory for the use of the members, the others for section meetings and committees

The fourth floor is not visible from the front and contains housekeeping apartments for the librarian and assistant, complete in every detail of convenience and equipment.

Origin of the Outbreak of Foot-and-Mouth Disease

The Bureau of Animal Industry of the U. S. Department of Agriculture has just published the result of the investigation of the origin of foot-and-mouth disease among cattle which prevailed during the early part of last winter. An abstract of the report furnished by the bureau is as follows:

The recent outbreak of foot-and-mouth disease in Michigan, New York, Pennsylvania and Maryland started from calves used in the propagation of smallpox vaccine virus which had been contaminated with the virus of foot-and-mouth disease, and the contaminated strain of vaccine originally came from a foreign country. These are the conclusions from an investigation made jointly by the Bureau of Animal Industry of the Department of Agriculture and the Public Health and Marine-Hospital Service of the Treasury Department, a report of which has just been issued. The investigation was conducted by Dr. John R. Mohler, chief of the Pathological Division of the former bureau, and Dr. M. J. Rosenau, director of the Hygienic Laboratory of the latter bureau.

SURGICAL DISEASES OF CHILDREN. By Samuel W. Kelley, Professor of Diseases of Children, Cleveland College of Physicians and Surgeons. Cloth. Pp. 768, with illustrations. Price, $5.00. New York. E. B. Treat & Co., 1909.

A book devoted to surgical pediatrics is something new. Ordinarily the subjects are covered in works on orthopedic surgery and general surgery. Dr. Kelley's implied reason for the creation of this new general subject is that of all surgical disorders of children, some are found only in children, some are found most often in children, and the rest are modified by occurrence in children. Thus surgical pediatrics, as a subject separate from general surgery, is justified in the same way as medical pediatrics as separate from general medicine, but differently from the justification of orthopedic surgery which is identified by dealing only with certain structures, and not only with a certain age.

The book systematically covers examination of children, surgical pathology of childhood, general infections, fractures and other traumas; all congenital and acquired deformities, bone and joint diseases, and regional surgery in children. The book is well illustrated, the twenty-six page index, an important part of any large book, is carefully prepared, and Dr. Kelley's tone is judicious, personal and not unduly authoritative, for no one man can be authority for such a long range of subjects.

A MANUAL OF CLINICAL DIAGNOSIS. By James Campbell Todd, Ph.B., M.D., Associate Professor of Pathology, Denver and Gross College of Medicine (University of Denver). Flexible Leather. Pp. 318, with illustrations. Price, $2.00. Philadelphia: W. B. Saunders Co., 1908.

This manual is well adapted to be a guide to the clinical laboratory work of the general practitioner. The methods are practical and are selected on the principle that it is better to earn one method well than to be acquainted superficially with any. The book is convenient in size and well illustrated, hich adds greatly to the value of such a work.

A TEXT-BOOK OF MEDICAL CHEMISTRY AND TOXICOLOGY. By James W. Holland, A.M., M.D., Professor of Medical Chemistry and Toxicology, and Dean, Jefferson Medical College, Philadelphia. Second Edition. Cloth. Pp. 655, with illustrations. Price, $3. Philadelphia: W. B. Saunders Co., 1908.

The second edition of Dr. Holland's text-book presents a thorough revision, which brings it in accord with the recent edition of the United States Pharmacopeia and the advances in physiologic chemistry. Few medical students enter on their course with a thorough understanding of general chemistry; and this fact makes it necessary to devote a large part of the work—more than half—to general chemical principles and the chemistry of the elements. The treatment, however, is specially suited to the requirements of the medical student. The sections dealing with organic and physiologic chemistry include the methods of analysis of the gastric contents, milk and urine. The tests given are such as will be practically useful. While the revision has introduced the most recent methods, it is a little disappointing to find antiquated methods like Ewald's salol test and the use of potassium iodid to determine the absorptive power of the stomach still retaining a place in so excellent a text-book.

A SYSTEM OF MEDICINE. Vol. 4. Parts 1 and 2. By Many Writers. Edited by Sir Clifford Allbutt, K.C.B., M.A., M.D., LL.D., D.Sc., F.R.C.P., F.R.S., F.L.S., F.S.A., Regius Professor of Physic in the University of Cambridge, and Humphry Davy Rolleston, M.A., M.D., F.R.C.P., Senior Physician, St. George's Hospital, Cambridge. Cloth. Price, $3 per volume. New York: The Macmillan Co., 1908.

This volume iv has been divided into two parts: The sections on diseases of the nose, pharynx and larynx have been expanded and combined with a section on diseases of the ear to form a separate volume. Some new articles have been introduced and the subjects treated in the previous edition brought up to date. No extensive review or commendation of this valuable and well-known work is necessary. The inclusion of diseases of the ear in a work on general medicine, while unusual, seems eminently appropriate, both on account of the intimate relations of the ear with the brain, and also because the general practitioner will naturally desire to find in his treatise on medicine such an account of ear diseases as will enable him to treat successfully such patients as need not be referred to a specialist.

Association News

CLINICS AT PHILADELPHIA

Series of Clinics and Demonstrations Arranged for Those Who Go to Atlantic City

THE JOURNAL has received the following announcements:

MEDICO-CHIRURGICAL COLLEGE

The Medico-Chirurgical College of Philadelphia cordially invites any members of the American Medical Association to visit the institution on their way to or from Atlantic City, and to attend the special clinics as indicated below:

Monday, June 7

9 a. m. Internal Medicine, Prof. James M. Anders.
10 a. m. Surgery, Prof. William L. Rodman.
11 a. m. Surgery, Prof. William L. Rodman.
12 m. Orthopedics, Prof. James P. Mann.
1 p. m. Ophthalmology, Prof. L. Webster Fox.
3 p. m. Internal Medicine, Prof. Judson Daland.

Saturday, June 12

10 a. m. Obstetrics, Prof. W. Frank Haehnlen.
11 a. m. Surgery, Prof. Ernest Laplace.
12 m. Genitourinary Diseases, Prof. H. M. Christian.
1 p. m. Pediatrics, Prof. W. C. Hollopeter.
3 p. m. Otology, Prof. Edward B. Gleason.

Other clinics will be arranged for Monday, June 14, if desired by any of the visitors.

The members of the Association are also cordially invited to attend the Alumni Reunion and Smoker of the Medico-Chirurgical College on the evening of Tuesday, June 8, which will be held at the Hotel Rudolf, on the Boardwalk, at Atlantic City.

SAMARITAN HOSPITAL

The staff of the Samaritan Hospital, Broad and Ontario streets, Philadelphia, will give clinics for visiting physicians as follows:

Monday, June 7

11-12 a. m. Medical Clinic, Dr. I. Newton Snively.
12-1 p. m. Gynecologic Clinic, Dr. Frank C. Hamond.
1-2 p. m. Exhibition of Gynecologic Specimens, Dr. Harry A. Duncan.
2-3 p. m. Rectal Clinic, Dr. Collier F. Martin.
3-4 p. m. Ear, Nose and Throat Clinic, Dr. Nathan G. Ward.
4-6 p. m. Surgical Clinic with Demonstrations of Spinal and Narcotic Anesthesia, Dr. W. Wayne Babcock and Dr. William A. Steele.

Saturday, June 12

11-12 a. m. Obstetric Clinic, Dr. John C. Applegate.
12-1 p. m. Gynecologic Clinic, Dr. Wilmer Krusen.
1-2 p. m. Pediatric Clinic, Dr. James H. McKee.
2-3 p. m. Medical Clinic, Dr. Samuel Wolfe.
3-4 p. m. Ophthalmic Clinic, Dr. Wendell Reber.
4-5 p. m. Surgical Clinic, with Demonstrations of Spinal and Narcotic Anesthesia, Dr. W. Wayne Babcock.
5-6 p. m. Genitourinary Clinic, Dr. William A. Steel.

Correspondence

A National Home for Aged or Invalid Physicians

To the Editor:—The establishment of a national home for aged, incapacitated and invalid physicians is a question which can profitably be considered by the American Medical Association. The broad humanitarianism of such a plan should appeal to our membership; its practicability should insure an early investigation and a report of its advisability.

The project is feasible. That has been demonstrated by labor unions and fraternal orders. In 1892, the Union Printers' Home, the pioneer of such institutions, was dedicated at Colorado Springs, Colo. In the seventeen years which have elapsed since that time every cent of the $800,000 which has been spent in maintenance and in permanent improvements, with the exception of a $10,000 gift and an endowment of $1,000, has come from the ranks of the union. The monthly assessment on each of the 45,000 members was originally ten cents; this was increased a few years ago to fifteen cents, which means half a cent a day, or less than the amount an average printer will earn in a minute's working time. This provides an annual fund of nearly $90,000. More than 1,000 members have been admitted to the Printers' Home; the average number of residents is 150; and the average cost per month $30. The property has a valuation of $1,000,000.

The Modern Woodmen of America, with a membership of 1,000,000, has this winter opened its national sanatorium for the treatment of tuberculosis, north of Colorado Springs. This institution will ultimately involve an expenditure for personal improvements of $500,000 or more, and will provide accommodations for 500, or possibly 1,000 patients It costs every member of the order ten cents a year.

With a membership of about 32,000, the American Medical Association is assured of ample support in undertaking to build and maintain an institution of this character. An assessment of $2.50 the first year would provide all the money necessary for the purchase of a site and the erection of the necessary buildings After that, a monthly assessment of five or ten cents would adequately maintain the home.

Such an institution would fill a want in the membership of the Association To the physician who is no longer able to engage in the practice of his profession because of broken health, it would offer a retreat where he could build up his lost strength and vitality under the most favorable of conditions; to the aged practitioner who still is required by force of circumstances to continue his daily work at a time when his years of active service should entitle him to a rest, it would be a haven of peace. The matter of planning the institution on such broad lines that provision might be made for the care of the families of those who seek its shelter is one that should be given the most careful attention

This is a humanitarian project of the highest type; it is not charity. Every member of the American Medical Association, on doing his share in the establishment and maintenance of the institution, would by right feel that it truly should be and would be his home should the vicissitudes of life, from which none of us are immune, ever give him reason to seek its kindly shelter. This is a matter which is deserving of the most careful consideration of our membership, and I present it at this time that it may come up for preliminary discussion at least, at the forthcoming convention at Atlantic City.

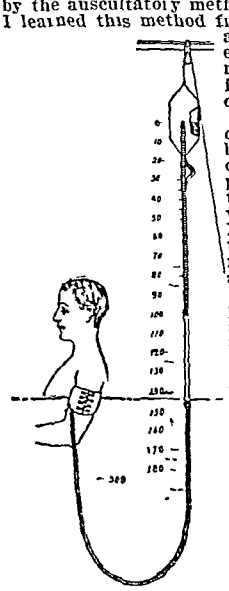
A. C MAGRUDER, M D, Colorado Springs, Colo.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed

METHOD OF DETERMINING DIASTOLIC BLOOD PRESSURE

To the Editor —I have just been reading two articles in German periodicals describing the determination of diastolic blood pressure by the auscultatory method When I was in Germany last summer, I learned this method from a young German physician in Nauheim and have successfully used it with interest ever since In none of these articles is mentioned this method, which I have found in practice to be much simpler than any other and just as accurate



The method is this After the physician has determined the systolic pressure by some method involving the circulatory compression of the arm, he relaxes the pressure and says to the patient, "At one time during the examination, you felt a very distinct throbbing of the arm Now I am going to make the determination over again and I want you to tell me *as soon as* that throbbing returns to as great an extent as you felt it at any time" Then the physician gradually makes pressure on the arm and when the patient says, "Now I feel the throbbing to as great an extent as before," the physician reads the diastolic pressure

I have tested this method in comparison with the other methods and my personal belief is that with the instruments so far invented, it will be found, in the hands of most observers, more correct than any of them Of course most of my own experience has been with my own blood pressure apparatus, using hydrostatic pressure as shown in the accompanying illustration

I therefore enumerate the diastolic pressure determination methods as follows. (1) the tactile method; (2) the graphic method, (3) by the observation of the fluctuations of pressure, (4) the auscultatory method; (5) the subjective pulsation method, which I employ

LOUIS FALGERES BISHOP, 54 West 55th St, New York

DISINFECTION BY FORMALDEHYD

To the Editor.—Please tell me how formaldehyd and potassium permanganate are used in combination as a germicide, and what is the result of the combination C. C

ANSWER—This method was described in THE JOURNAL, July 14, 1906, xlvii, 139, and Jan 12, 1907, xlviii 159 The action between the potassium permanganate and a part of the formaldehyd produce enough heat to volatilize the greater part of the formaldehyd as formaldehyd gas, which is the disinfecting agent

RUOTTE'S ANASTOMOSIS OF SAPHENOUS VEIN TO PERITONEUM

To the Editor —In THE JOURNAL (Nov 14, 1908, li, 1662), which I have had the pleasure of taking for two years, there is a paper by Alexis Carrel, entitled "Results of the Transplantation of Blood Vessels, Organs and Limbs," in which the following passage appears "Ruotte cut the saphenous vein and sutured its peripheral end to the peritoneum in a case of chronic ascites The ascites disappeared" As there is no further mention of the said Ruotte, I apply to you for any possible information in regard to Ruotte's paper

L SLAVINSKI, M D, Warsaw, Poland, Russia

ANSWER—Ruotte published his work on the treatment of chronic ascites by anastomosis of the saphenous vein to the peritoneum in *Lyon médical*, 1907, page 574 The title of the paper is "Abouchement de la veine saphène au péritoine comme traitement de l'ascite" In a case of cirrhosis of the liver, the ascites reproduced itself very quickly after puncture Ruotte dissected and cut the saphenous vein 8 cm below its mouth, and sutured its peripheral end to the peritoneum just above Poupart's ligament The ascites disappeared Several months after the operation, the patient was in good condition and the ascites had not reappeared In another case, the patient was in a very bad general condition and died a few days after the operation Post-mortem examination showed that the saphenous vein was normal. On the peritoneum, a little infundibulum was seen at the place of its anastomosis to the saphenous vein A catheter could easily be introduced from the peritoneum to the femoral vein through the saphenous vein.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U S Army, week ended May 15, 1909

Hanson, L H, 1st lieut, granted leave of absence for fourteen days

Woodson, R S, major, granted leave of absence for four months

Russell, F F, major, ordered to Philadelphia and New York City, on business of the Medical Department, and then to return to Washington

Schmittel, Ferdinand, 1st lieut, granted leave of absence for ten days

Whitmore, E R, capt, detail with Bureau of Science, Department of the Interior, Philippine Islands, extended one year

Field, Peter C, capt, ordered to duty at a military tournament at Toledo Ohio, June 26, 1909

Chamberlain, W P, major, granted leave of absence for ten days

Love, Albert G, 1st lieut, granted leave of absence for fourteen days

Crosby, E D, lieut col, Kean, J R, lieut col, Ireland, M W, major, Russell F F, major detailed to represent the medical department of the Army at the meeting of the American Medical Association at Atlantic City N J, June 8 to 11

Thomason, H D capt relieved from duty at Fort Douglas, Utah, and ordered to Fort Missoula, Mont, for duty.

Navy Changes

Changes in the Medical Corps, U S Navy, for the week ended May 15, 1909

Nash, F S, surgeon, ordered to additional duty at the Marine Recruiting Station, Philadelphia

Minte J M, asst surgeon, detached from the Naval Recruiting Station, Cincinnati and ordered to the Naval Medical School Hospital, Washington, D C for treatment

Gardner, J E, Medical inspector, ordered to additional duty at the Naval Recruiting Station Boston

Byrnes J C, medical inspector, detached from the *West Virginia* and ordered to the *Tennessee* as fleet surgeon of the Pacific Fleet

Porter, F E P A surgeon detached from the Naval Recruiting Station, Boston, and ordered to the Naval Station, San Juan, P R sailing from New York May 22

Turner, H W B, asst surgeon, detached from the *Hancock* and ordered to the *Paducah*, sailing from New York about May 21

Fauntleroy A M, P A surgeon, detached from Marine Recruiting Office, Philadelphia, and ordered to the *Hartford*

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine Hospital Service, during the week ended May 14, 1909.

SMALLPOX—UNITED STATES

California: Berkeley, April 17-24, 1 case; Oakland, April 19-26, 2 cases; Sacramento, March, 1-31, 2 cases.
Georgia: Macon, April 25-May 2, 7 cases.
Illinois: Danville, April 25-May 2, 8 cases; Galesburg, April 24-May 1, 1 case; Springfield, April 23-30, 1 case.
Indiana: Fort Wayne, April 17-24, 1 case; Indianapolis, April 25-May 2, 1 case; La Fayette, April 26-May 3, 3 cases; South Bend, April 25-May 1, 3 cases.
Iowa: Cedar Rapids, April 1-30, 2 cases; Council Bluffs, April 25-May 3, 1 case; Sioux City, April 1-30, 1 case.
Kansas: Kansas City, April 25-May 1, 1 case; Wichita, 4 cases.
Kentucky: Lexington, April 25-May 1, 2 cases.
Louisiana: New Orleans, April 25-May 1, 5 cases.
Minnesota: Duluth, April 22-29, 2 cases.
Missouri: St. Louis, April 25-May 1, 1 case.
Montana: State of, March 1-31, 55 cases.
Nebraska: South Omaha, April 3-10, 1 case.
New Jersey: Trenton, April 25-May 1, 2 cases.
New York: Niagara Falls, April 25-May 1, 1 case.
Ohio: Ashtabula, April 25-May 1, 6 cases; Cincinnati, April 23-30, 18 cases; Cleveland, 1 case.
Tennessee: Knoxville, April 25-May 1, 13 cases.
Texas: Hidalgo County, Jan. 15-April 1, 16 cases; San Antonio, April 25-May 1, 4 cases.
Utah: State of, March 1-31, 136 cases.
Washington: Spokane, April 17-24, 6 cases.
Wisconsin: La Crosse, April 25-May 1, 1 case; Superior, 3 cases.

SMALLPOX—INSULAR

Philippine Islands: Manila, March 13-20, 4 cases, 2 deaths.

SMALLPOX—FOREIGN

Brazil: Bahia, March 13-27, 8 cases, 2 deaths; Pernambuco, March 1-15, 5 deaths.
Canada: Halifax, April 17-24, 1 case; Toronto, Feb. 27-April 17, 14 cases.
Ceylon: Colombo, Dec. 12-Jan. 16, 64 cases, 12 deaths.
China: Amoy, March 20-27, present; Hongkong, March 20-April 3, 2 cases.
France: Paris, April 10-17, 1 case.
India: Bombay, March 30-April 6, 17 deaths; Calcutta, March 20-27, 446 deaths; Madras, March 27-April 2, 3 deaths; Rangoon, March 20-27, 3 deaths.
Indo-China: Saigon, March 14-21, 2 cases, 1 death.
Italy: General, April 10-18, 61 cases; Catania, April 10-17, 1 case; Naples, April 11-18, 11 cases.
Java: Batavia, March 13-20, 3 cases.
Mexico: Guadalajara, April 15-22, 1 death; Mexico City, Feb. 27-March 27, 91 deaths; Monterey, April 18-25, 8 deaths; Veracruz, 2 cases, 2 deaths.
Persia: Karmanshah, Feb. 17-March 17, 22 deaths.
Portugal: Lisbon, April 10-17, 6 cases.
Russia: Batoom, Feb. 1-28, 1 case; Moscow, March 27-April 10, 52 cases, 23 deaths; Riga, April 10-17, 2 cases; Warsaw, Feb. 6-13, 2 deaths.
South Africa: Durban, March 20-27, 1 case, imported.
Spain: Almeria, March 1-31, 1 death; Barcelona, April 12-19, 1 death.
Straits Settlements: Penang, March 20-27, 1 case, imported.
Switzerland: Zug, canton, April 11-17, 1 case.
Tripoli: Tripoli, March 27-April 10, 90 cases, 10 deaths.
Uruguay: Montevideo, Feb. 1-28, 11 deaths.

YELLOW FEVER

Brazil: Bahia, March 13-27, 21 cases, 12 deaths; Pernambuco, March 1-15, 1 death.
Ecuador: Guayaquil, March 27-April 3, 18 deaths.
Mexico: San Barnardo, vicinity of Maxcanu, April 24-May 1, 1 case; Ticul, April 10-17, 2 cases.

CHOLERA—INSULAR

Philippine Islands: Provinces, March 13-20, 118 cases, 72 deaths.

CHOLERA—FOREIGN

Ceylon: Colombo, Dec. 12-Jan. 2, 4 cases, 3 deaths.
India: Bombay, March 27-April 6, 14 deaths; Calcutta, March 20-27, 143 deaths; Madras, March 27-April 2, 3 deaths; Rangoon, March 20-27, 4 deaths.
Russia: St. Petersburg, April 16-21, 22 cases, 2 deaths.

PLAGUE

Brazil: Bahia, March 13-27, 5 cases, 1 death.
China: Hongkong, March 20-April 3, 11 deaths.
Russia: General, April 2-8, 2 cases, 1 death.
India: General, March 20-27, 6,059 cases, 5,035 deaths; Bombay, March 30-April 6, 407 deaths; Calcutta, March 20-27, 6 deaths; Rangoon, March 20-27, 16 deaths.
Japan: Formosa, island, March 13-27, 99 cases, 85 deaths; Kobo, vicinity, March 27-April 3, 1 case.
Mauritius: Port Louis, Jan. 1-31, 12 cases, 12 deaths.
Straits Settlements: Singapore, March 13-20, 1 death.
Turkey: Jiddah, April 19-21, 1 case, 2 deaths.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended May 12, 1909:

Carmichael, D. A., surgeon, granted 14 days' leave of absence from May 26, 1909.

Wertenbaker, C. P., surgeon, detailed to represent the Service at the annual meeting of the National Association for the Study and Prevention of Tuberculosis to be held in Washington, D. C., May 13-15, 1909.

Lavinder, C. H., P. A. surgeon, granted 4 days' leave of absence en route to Columbia, S. C.

Lumsden L. L., P. A. surgeon, granted 7 days' leave of absence from May 10, 1909, under paragraph 191 Service Regulations.

Warren, B. S., P. A. surgeon, detailed to represent the Service at the meeting of the Arkansas State Medical Society to be held at Pine Bluff, Ark., May 19-21, 1909.

Collins, G. L., P. A. surgeon, granted 3 days' leave of absence from April 30, 1909, under paragraph 189 Service Regulations.

Pettyjohn, Joseph, P. A. surgeon, on arrival of Asst.-Surgeon J. R. Hurley, directed to proceed to San Francisco.

Marshall, E. R., asst.-surgeon, granted 2 days' leave of absence from May 13, 1909.

Ames, R. P., acting asst.-surgeon, directed to proceed to Gualan, Guatemala, and other places on line of Guatemala Railway to observe sanitary conditions.

Foster, J. P. C., acting asst.-surgeon, granted 4 days' leave of absence from May 13, 1909.

Goldsborough, B. W., acting asst.-surgeon, granted 5 days' leave of absence from May 12, 1909, without pay.

Hume, Lea, acting asst. surgeon, directed to proceed to Del Rio, Texas and vicinity.

Rodman, John C., acting asst.-surgeon, granted 14 days' extension of leave from April 13, 1909, on account of sickness.

Stearns, H. H. acting asst.-surgeon, granted 2 days' leave of absence, April 12 and 14, 1909, under paragraph 210, Service Regulations.

Terry, M. C., acting asst.-surgeon, granted 2 days' leave of absence from April 18, 1909.

BOARDS CONVENED

Board of medical officers convened to meet at the Marine Hospital office Galveston, Texas, May 12, 1909, for the purpose of making a physical examination of an applicant for the position of cadet in the Revenue-Cutter Service. Detail for the board: P. A. Surgeon G. M. Corput, chairman; Acting Asst.-Surgeon Wm. H. Gammon, recorder.

Board of medical officers convened to meet at the Marine Hospital, Baltimore, as soon as practicable, for the purpose of making a physical examination of an applicant for the position of cadet in the Revenue-Cutter Service. Detail for the board: P. A. Surgeon G. M. Corput chairman; Acting Asst.-Surgeon Wm. H. Gammon, recorder.

Board of medical officers convened to meet at the Marine Hospital, Baltimore, as soon as practicable, for the purpose of making a ph[illegible] of a First Lieut., U. S. Revenue-Cutter Servic[illegible] board: Surgeon W. P. McIntosh, chairman; P. [illegible] Gwyn, recorder.

[illegible] officers convened to meet on May 15, 1909, for the purpose of making physical examinations of officers of the Revenue-Cutter Service for promotion, as follows:

Portland, Me. Surgeon P. C. Kalloch, chairman; Acting Asst.-Surgeon A. F. Stuart, recorder.

Boston. Surgeon L. L. Williams, chairman; Passed Asst.-Surgeon T. W. Salmon, recorder.

New York. Passed Asst.-Surgeon C. W. Vogel, Chairman; Asst.-Surgeon F. A. Ashford, recorder

Baltimore. Surgeon W. P. McIntosh, chairman; P. A. Surgeon M. K. Gwyn, recorder.

Norfolk, Va. P. A. Surgeon G. L. Collins, chairman; Acting Asst.-Surgeon R. W. Browne, recorder.

Galveston, Tex. P. A. Surgeon G. M. Corput, chairman; Acting Asst.-Surgeo[illegible] recorder.

Board of [illegible] officers will be convened to meet at the Bur[illegible] 14, 1909, for the examination of applicants for the position of Assistant Surgeon in the Public Health and Marine-Hospital Service.

Marriages

HAROLD WARD DANA, M.D., to Miss Gertrude Veronica Quinn, both of Boston, May 6.

HARRY R. SPICKERMON, M.D., to Mrs. Lela Fay Spickermon, both of Muncie, Ind., recently.

GEORGE ROGER MYERS, M.D., Hurlock, Md., to Miss Edna Wright, at Hurlock, April 28.

ROLAND B. MACON, M.D., to Mrs. Adele Slayden Cross, both of Clarksville, Tenn., May 4.

WILLIAM A. RAIMAN, M.D., to Miss Rebecca Checkwood, both of Swarthmore, Pa., recently.

ARTHUR MARRIOTT SHIPLEY, M.D., to Miss Julia Armistead Joynes, both of Baltimore, May 6.

JOSEPH EDWARD PIRRUNG, M.D., Cincinnati, to Miss Adele Heile, of Covington, Ky., April 20.

WILLIAM C. ELLIOTT, M.D., Holly Springs, Miss., to Miss Mary A. Hughes, of Memphis, recently.

ARTHUR RANDOLPH GREEN, M.D., to Miss Florence Elizabeth Seeley, both of New York City, May 5.

FERDINAND LEO KIEFFER, M.D., Covington, Ky., to Miss Bertha Grau of Newport, Ky., May 5.

M. HEMINWAY MERRIMAN, M.D., New York City, to Miss Mallory Betts, of Norwalk, Conn., May 3.

JAMES ROYDAN PEABODY, M.D., Colorado Springs, to Miss Annie Hodgson Long of Louisville, Ky., May 11.

Deaths

John M. Boyd, M.D. University of Pennsylvania, Philadelphia, 1856; a member of the American Medical Association; surgeon in the Confederate service throughout the Civil War; chief of staff of the Knoxville (Tenn.) General Hospital since its foundation; president of the board of trustees of the Tennessee Deaf and Dumb School; a member of the board of trustees of the University of Tennessee; died at his home May 16, aged 75.

Henry Albert Crandall, M.D. Castleton (Vt.) Medical College, 1859; a member of the Vermont State Medical Society and a charter member of the Burlington Medical and Surgical Club; physician to the Mary Fletcher Hospital, Burlington; assistant surgeon of the Sloan General Hospital, Montpelier, during the Civil War; in 1891 health officer of Burlington; died at his home from cerebral hemorrhage, May 6, aged 77.

Dorrance William Aldrich, M.D. Bellevue Hospital Medical College, New York City, 1874; a member of the American Medical Association; a veteran of the Civil War; in 1886 appointed local surgeon for the Burlington System at Galesburg, Ill.; in 1876, 1880 and 1884, coroner of Knox county for two-year terms; and once mayor of Galesburg; died at his home, May 8, aged 63.

Charles John Sharretts, M.D. College of Physicians and Surgeons, New York City, 1878; of New York City; attending physician to the Montefiore Home; visiting physician to the Church Charities Hospital, Astoria, L. I.; for many years examiner for the Metropolitan Life Insurance Company; died at his home in Flushing, L. I., May 7, aged 54.

Roger Brooke, M.D. University of Maryland, Baltimore, 1887; a member of the American Medical Association, and once vice-president of the Medical and Chirurgical Faculty of Maryland; died at his home near Sandy Spring, Md., May 9, from heart disease, aged 63.

James McMahon, M.D. Upper Canada School of Medicine, Toronto, 1850; for fifteen years chief of the law stamp office, Osgoode Hall, Toronto; and from 1875-1894 member of the Provincial Parliament for North Wentworth; died suddenly at his home in Toronto, April 23, from cerebral hemorrhage, aged 87.

I. Winslow Ayer, M.D. Eclectic Medical Institute, Cincinnati, 1860; of Northville, Mich.; who during the Civil War, practically unassisted and impelled only by patriotism, unmasked the "Confederacy of the Northwest;" died in the Wayne County Hospital, April 29, aged 83.

William Peale Brewer, M.D. Medical College of Virginia, Richmond, 1864; of New Orleans; a Confederate soldier and later transferred as assistant surgeon to the medical corps; for two years surgeon to the Confederate Veteran Soldiers' Home; died in Touro Infirmary, May 5, a few days after an operation for appendicitis, aged 67.

Clarence Bentley Paul, M.D. Marion-Sims College of Medicine, St. Louis, 1893; a member of the Iowa State Medical Society; supreme medical director of the Homesteaders; and one of the founders of the Brotherhood of American Yeomen; died suddenly at his home in Des Moines, May 8, from heart disease, aged 48.

William D. Wells, M.D. Memphis Hospital Medical College, Memphis, Tenn., 1894; formerly of Gans, Okla.; a member of the American Medical Association; died in the Sebastian County Hospital, Fort Smith, Ark., May 2, from the effects of chloral, supposed to have been taken with suicidal intent.

William H. Shultz, M.D. Indiana Medical College, Indianapolis, 1871; a member of the Indiana State Medical Association; a veteran of the Civil War; formerly president of the local board of U. S. Pension Examining Surgeons of Lebanon; died at his home in that city, May 6, from influenza, aged 48.

William Stanbury Plotner, M.D. Western Pennsylvania Medical College, Pittsburg, 1888; the first student to enroll in that institution and valedictorian of his class; a member of the Turtle Creek Valley Medical Society; died at his home in East Pittsburg, Pa., May 8, from disease of the liver, aged 48.

John Jones Burroughs, M.D. New Orleans School of Medicine, 1860; Bellevue Hospital Medical College, New York City, 1875; Jefferson Medical College, Philadelphia, 1876; a surgeon in the Confederate Service during the Civil War; died at his home in Houston, Texas, May 3, aged 78.

Noyes B. Prentice, M.D. Starling Medical College, Columbus, Ohio, 1855; Western Reserve University, Cleveland, 1857; for two terms United States marshal; one of the oldest practitioners of Cleveland; died at his home in that city, May 1, from pneumonia, aged 80.

Paul A. Barrier, M.D. Long Island College Hospital, Brooklyn, 1860; a member of the American Medical Association; surgeon in the Confederate service during the Civil War; died at his home in Mount Pleasant, N. C., May 5, from cerebral hemorrhage, aged 76.

Benjamin A. Jaudon, M.D. Jefferson Medical College, Philadelphia, 1853; surgeon in the Confederate service during the Civil War; president of the Marion County (Mo.) Savings Bank; died suddenly at his home in Palmyra, April 30, aged 76.

Landon Spray Murray, M.D. University of Wooster, Cleveland, Ohio, 1868; of Medina, Ohio; a member of the American Medical Association; died at the home of his niece in Seville, Ohio, April 29, from acute cardiac dilatation, aged 69.

Benjamin J. Fulkerson, M.D. New York University, New York City, 1881; a member of the American Medical Association and the Tyrone Medical Club; died at his home in Tyrone, Pa., from nephritis, May 6, aged 54.

Henry Clay Lane, M.D. Western Pennsylvania Medical College, Pittsburg, 1902; a member of the Turtle Creek Valley Medical Association; died at his home in East Pittsburg, Pa., May 7, from heart disease, aged 32.

David W. Riggs, M.D. Jefferson Medical College, Philadelphia, 1861; a surgeon in the Federal service during the Civil War; of Northside, Pittsburg, Pa.; died in Rochester, Minn., from pneumonia, May 7, aged 75.

Frederick Augustus Cutter, M.D. Bellevue Hospital Medical College, New York City, 1865; McGill University, Montreal, 1873; of Sutton, Que.; died at the home of his son in Berkeley, Cal., May 8, aged 66.

William Henry Finn, M.D. Harvard Medical School, Boston, 1863; surgeon in the Navy during the Civil War; a member of the Philadelphia Historical Society; died at his home in Philadelphia, May 5, aged 74.

Carey William Howe, M.D. University of Buffalo, N. Y., 1860; assistant surgeon of the One Hundred and Sixteenth New York Volunteer Infantry during the Civil War; died at his home in Buffalo, May 7.

Edward S. Carr, M.D. Jefferson Medical College, Philadelphia, 1874; a member of the Tennessee State Medical Association; died at his home near Castalian Springs, May 7, from cerebral hemorrhage, aged 56.

Henry W. Bishoff, M.D. University of Pennsylvania, Philadelphia, 1866; a member of the Dauphin County Medical Society; died suddenly at his home in Halifax, Pa., February 1, from myocarditis, aged 72.

Christian M. Schulte, M.D. Washington University, Baltimore, 1876; at one time ward physician in the health department of Baltimore; died at his home in that city, May 5, from pneumonia, aged 58.

William Davis Tanner, M.D., a veteran of the Mexican War; who practiced in White county, Ill., from 1850 to 1870; died at his home in Denver, April 8, from senile debility, aged 85.

George H. Thrash, Jr., M.D. Chattanooga (Tenn.) Medical College, 1892; died at the home of his father in Hominy, N. C., May 3, from septicemia, due to an operation wound, aged 40.

Luther J. Cranfill, M.D. Fort Worth (Texas) University, 1903; of Loco, Okla.; a member of the Oklahoma State Medical Association; died on a train near Fort Worth, Texas, April 25, aged 50.

George W. Eager, M.D. College of Physicians and Surgeons, New York City, 1846; for twenty-four years postmaster of Montgomery, N. Y.; died at his home in that place, April 23, aged 84.

Henry R. Given, M.D. Rush Medical College, Chicago, 1871; a member of the Nebraska State Medical Association; died at his home in Wymore, April 18, from diabetes, aged 62.

Nathaniel M. Smith, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1881; died suddenly in his apartments in Marion, Kan., May 3, from heart disease, aged 58.

Elwyn Ashworth Holroyd, M.D. Rush Medical College, Chicago, 1879; died at his home in Chicago, May 13, from hemorrhage of the lungs, due to pulmonary abscess, aged 57.

Joel Eff Buckman, M.D. Barnes Medical College, St. Louis, 1904; of Modesto, Ill.; died at the home of his parents in Farmingdale, Ill., May 3, from tuberculosis, aged 30.

Marinda Emily Fullam, M.D. Northwestern University Woman's Medical School, Chicago, 1886; died at her home in Aurora, Ill., January 5, from paralysis, aged 68.

Velmore Huse, M.D. Baltimore Medical College, 1898; of New York City; died in the Austin Hospital, New York City, May 7, from appendicitis, aged 34.

O. W. Morris, M.D. Indiana Eclectic Medical College, Indianapolis, 1893; died at his home in Elwood, Ind., May 5, from cerebral hemorrhage.

Timothy Edward McOwen, M.D. Harvard Medical School, Boston, 1885; of Lowell, Mass.; died at St. John's Hospital in that city, May 5, aged 47.

John W. Megee, M.D. Beaumont Hospital Medical College, St. Louis, 1889; died at his home in Clarence, Mo., April 29, from tuberculosis, aged 53.

Robinson Peter Corbett (license, Ohio, 1896; years of practice); died at his home in St. Louisville, Ohio, from senile debility, May 8, aged 82.

Ephraim H. Harris, M.D. New York Medical College, New York City, 1866; died at his home in Grinnell, Iowa, May 5, from paralysis, aged 79.

James McGuffin, M.D. Electropathic Institute, Philadelphia, 1877; of Milwaukee; died at the Layton Home in that city, May 6, aged 80.

Charles C. Phillips, M.D. Philadelphia College of Medicine and Surgery, 1853; died at his home in Pitman, N. J., April 22.

Daniel Webster Durrett, M.D. University Medical College, Kansas City, Mo., 1900; of Pawnee, Okla.; died at the home of his brother near Emden, Mo., April 23, from tuberculosis, aged 38.

Henry Barnett, M.D. Eclectic College of Maine, Lewiston, 1887; died at his home in Lancaster, N. H., April 29, aged 52.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

The Medical Profession and Vital Statistics

The May number of the *Ohio State Medical Journal* states that J. J. Boone of Mt. Victory has been arrested for failure to comply with the vital statistics law, he having refused to report deaths because the law does not provide pay for such service. It is proposed to make this a test case to determine whether the state has a right to require compulsory service of professional men without providing compensation.

Commenting on the case, the Ohio editor says, "Every profession, whether law, journalism, education, medicine, the ministry, etc., primarily exists in the interests of the public. The organized effort of each one is directed to this end. Failing in this it would degenerate and fail of its own mission. The state, recognizing the functions of the various professions toward the people, enacts and enforces laws to conform to professional standard. Vital statistics stand in relation to the public good. The organized medical profession appreciates this fact and has been instrumental in securing the vital statistics law. All sanitary laws represent the progress of the medical profession. Professional standards are expressed in the language of state medicine. Medical licensure by the state is intended to safeguard public interests and imposes those conditions of qualifications and public service which the right to practice medicine implies. Men whose occupations stand in relation to the public health are required to conform to certain rules of conduct . . . laws are passed in the interest of the people and not especially for the medical profession. They are intended for the physician to obey. . . . It is a foregone conclusion that the courts will not grant special favors to physicians under the operations of the vital statistics act."

The only legal justification which can be found for the requirement by the state of a license on the part of a practicing physician is that the legally qualified physician occupies the position of a quasi-public official and that in return for the performance of certain duties he is granted certain special privileges. It is necessary for the good of the community that carefully compiled statistics should be available regarding the causes of death. To be of any value such statistics must be based on reports from competent persons, that is from legally qualified and recognized physicians. The duty of making reports of births and deaths therefore is a part of the implied contract by which the physician holds a license from the state authorizing him to practice medicine. As every attorney who is admitted to the bar by the profession of his state is regarded, in a sense, as an officer of the state, so every legally qualified physician should be regarded, in a sanitary and hygienic sense, as a state health officer. The duty of reporting births and deaths is one of the most important of his obligations and should not for a moment be neglected nor should the state be expected to provide a nominal compensation for such service. If the physician were on the same plane as the grocer or dry-goods merchant, he could reasonably refuse to perform any service unless he were compensated therefor. The groceryman, however, does not receive any license from the state, neither does he ask the state to prevent any except legally qualified grocerymen from engaging in business. When the medical profession assumes the position of a specially qualified and privileged class, it must recognize the duties and obligations of such a class as well as the advantages. The enforcement of the new Ohio law regulating vital statistics is of great importance at the present time.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

DR. JOHN H. BLACKBURN, DIRECTOR
BOWLING GREEN, KENTUCKY

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Tenth Month—Fourth Weekly Meeting

ACUTE MASTOIDITIS

Causes, general and local, symptoms and physical signs, prognosis, abortive treatment. Operative treatment, indications, technic.

SUBPERIOSTEAL ABSCESS IN ACUTE MASTOIDITIS.—Diagnosis and treatment.

ACUTE MASTOIDITIS IN INFANTS.—Differences in temporal bone, in symptoms; treatment.

CHRONIC MASTOIDITIS

Pathology, symptoms. Radical mastoid operation, indications, technic, dangers. Intracranial complications, frequency, mortality. Sinus phlebitis and sinus thrombosis, pathology, symptoms, treatment. Otitis brain abscess, symptoms, diagnosis. Cerebellar abscess, symptoms, diagnosis. Infective meningitis, pathology, diagnosis, prognosis.

CHRONIC NON-SUPPURATIVE OTITIS MEDIA

Causes, pathology, diagnosis. Palliative and surgical treatment.

OTOSCLEROSIS.—Causes, diagnosis, treatment.

LABYRINTHINE DISEASES.—Causes, diagnosis

MONTHLY MEETING

The Early Diagnosis and Treatment of Acute Catarrhal and Purulent Otitis Media.

The Relation of Nasopharyngeal Diseases and Obstructions to Diseases of the Ear.

The Symptomatology and Diagnosis of Acute Mastoiditis.

END OF SECOND YEAR COURSE

The program for the last meeting of the tenth month as given above, concludes the outline of the second year of the Postgraduate Study Course. The publication of the third year outline will begin in September.

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, JUNE 8-11.

American Academy of Medicine, Atlantic City, June 5-7.
Am. Assn. of Genito-Urinary Surgeons, Pocono, Pa., May 31-June 1.
Am. Assn. of Med. Milk Commissions, Atlantic City, June 7.
Am. Climatological Association, Fortress Monroe, Va., June 4-5.
American Dermatological Association, Philadelphia, June 3-5.
Am. Gastro-Enterological Association, Atlantic City, June 7-8.
American Gynecological Society, New York, May 27-29.
American Laryngological Association, Boston, May 31-June 2.
American Laryn., Rhin. and Otol. Society, Atlantic City, June 3-5.
American [illegible] Atlantic City, June 1-4.
American [illegible] York, May 27-29.
American [illegible] Conn., June 14-16.
American Pediatric Society, Lenox, Mass., May 27-28.
American Proctologic Society, Atlantic City, June 7-8.
American Surgical Association, Philadelphia, June 1-3.
American Urological Association, Atlantic City, June 7.
Con. of State and Prov. Bds. of No. Am., Washington, June 4-5.
Connecticut State Medical Society, Hartford, May 26-27.
Maine Medical Association, Portland, June 16-17.
Massachusetts Medical Society, Boston, June 15-16.
Natl. Con. State Med. Ex. and Licensing Bds., Atlantic City, June 7.
New Jersey Medical Society, Cape May, June 23-25.
Rhode Island Medical Society, Providence, June 1.
Wisconsin State Medical Society, Madison, June 30-July 2.

LOUISIANA STATE MEDICAL SOCIETY

Thirtieth Annual Meeting, held at New Orleans, May 4-6, 1909

The President, Dr. E. DENEGRE MARTIN, in the Chair

Election of Officers

The officers elected were named in THE JOURNAL, May 15.

Contribution to Carroll Fund

A resolution was adopted that $150 be appropriated toward the fund for the relief of the widow of Major Carroll.

Prophylactic Serotherapy and the Theory of Anaphylaxis

DR. I. I. LEMANN, New Orleans: While anaphylaxis has been widely discussed during the past three years by workers in the field of immunity, it has received comparatively little attention in general societies and medical journals, this paper presents a brief summary of the literature and I ask: What shall be our attitude in regard to prophylactic injections of serum in the light of probable subsequent anaphylactic reactions? An experience which I had in January, 1907, illustrates one phase of the anaphylactic reaction. The patient, a girl of thirteen, frequently had sore throat, and on many of these occasions the attacks suggested diphtheria. During one of them, in November, 1903, she was given an injection of diphtheria antitoxin, but a swab culture taken at the time proved negative. At the time there were no symptoms of serum disease. In the last days of December, 1906, she had another of her customary attacks and the same thing was done; again the culture was negative. Twenty-four hours after the injection she developed a general urticaria, and the pulse became abnormally slow, although the temperature remained about 101 F. During the next twenty-four hours the pulse was as slow as 40 a minute. For several days the bradycardia continued and was gradually substituted by a tachycardia, which reached 120; this was associated with marked irregularity and intermission. There were no murmurs and there was no enlargement of the heart. This tachycardia continued for a year, while the irregularity of the cardiac action as manifested by undue hastening of the pulse on slight exertion continued for eighteen months. While we must insist on serum inoculations as a therapeutic measure of the highest value, how must we look on prophylactic injections in the light of possible subsequent anaphylaxis? I confess that after my experience I have given up the old rule of injecting antitoxin in doubtful cases at the time of taking the swab culture and have awaited the result of the bacteriologic examination. In this way, I have avoided, I think, unnecessary sensitizings and hence unnecessary risk in case of future urgent need of the employment of serum. About prophylactic injections I am inclined to feel the same way.

DISCUSSION

DR. J. T. HALSEY, New Orleans: I have had two experiences similar to that of Dr. Lemann, and the lesson I have drawn is to avoid unnecessary antitoxin injections.

DR. C. C. BASS, New Orleans: Admitting that anaphylaxis exists, we must not lay too much stress on it, or we will do more harm than good. When it is possible to make a culture in a suspected case of diphtheria, it is probable that we should not administer serum until a diagnosis is made. As a prophylactic measure we will probably in the future use bacterial vaccines.

DR. L. G. LEBEUF, New Orleans: I think some work ought to be done to determine which patients may receive injections with safety and which may not. Is any work being done along that line?

DR. I. I. LEMANN: The remarks I made do not apply to the therapeutic use of the serum. Klemperer has made a suggestion that we could determine whether or not it would be safe to give serum to a given individual by taking a small amount of blood from that individual and injecting it into a guinea-pig and then injecting the guinea-pig with horse serum also. If the guinea-pig reacts anaphylactically, it is unsafe to give the patient horse serum. It is plain, however, that this is not practical.

Treatment of Tuberculosis at Covington Sanatorium

DR. WALLACE J. DUREL, New Orleans: This report includes cases treated from 1905 to 1907. In all, 59 patients were treated. Of these, 2 were in the first clinical stage; 15 in the second; 21 in the third; 21 in the fourth. In 7 cases there was laryngeal involvement, 4 of the cases ending in recovery, and 3 in no improvement. In 11 cases there were stomach or digestive disorders, 4 ending fatally. Two patients suffered with joint tuberculosis; both recovered. The great percentage of the patients reported here as apparently cured had already followed the climatic treatment, without any benefit, before undergoing the hygienic-dietetic treatment. Most of the individuals were given tuberculin and creosote. The total percentage of results was as follows: First clinical stage, 100 per cent. apparent cure or complete recovery; second clinical stage, 100 per cent. apparent cure or complete recovery; third clinical stage, 57.1 per cent. apparent cure or complete recovery, 23.8 per cent. disease arrested, 19.1 improved, no mortality; fourth clinical stage, 19.1 per cent. disease arrested, 28.5 per cent. improved, 38.1 per cent. mortality. These statistics, while not large, should convince physicians that the cure of tuberculosis is not entirely dependent on climate.

(*To be continued*)

OHIO STATE MEDICAL ASSOCIATION

Sixty-fourth Annual Meeting, held at Cincinnati, May 5-7, 1909

President's Address: History of the Association

DR. D. R. SILVER, Xenia: The history of the organization may be divided into four periods, the first extending from 1812, when just five delegates were present. These men made a winter journey of more than 100 miles on horseback over the corduroy roads of that time, nearly a century ago. In 1827, fifteen years later, a convention was held at Columbus, with Dr. Wooley, of Cincinnati, as president, at which time a plan and constitution for a state medical society was adopted, the first session of which was to convene in 1829. However, the organization seems never to have proceeded beyond the convention form, and was operated under the old district medical law, which was repealed in 1833. The second period of medical history dates from January, 1835, when Dr. William Awl, of Columbus, issued a circular letter to all regular and scientific medical practitioners who were desirous to advance the honor and dignity of the profession, to meet in convention. They did meet, and Dr. Daniel Drake was one of the leading spirits. He gave an address urging the establishment of a school for the instruction of the blind. Under this system medical conventions continued to be held until May, 1846, when the Ohio State Medical Society was organized at the Neil House in Columbus, and the enrollment of membership numbered 25. Thus commenced the third

period of medical history in Ohio. The fourth period began with the reorganization in 1902, when the membership was about 1,000. The work of Dr. McCormack, in Ohio, has contributed not a little to a more perfect organization of the profession and a great deal to the education of the people of the state. The senatorial candidacy of Dr. C. A. L. Reed can not fail to have a far-reaching influence in shaping future legislation. Optometry is the most plausible of any of the pretensions of quackery, and to oppose this form of charlatanry I recommend that the component societies provide for the reading of papers in the annual programs on the subject of refraction and other anomalies of vision. The Ohio Commission for the Blind, which was inaugurated at the instance of the American Medical Association, is doing good work. I also recommend the establishment of tuberculous sanatoria, and that the medical profession take an active interest in directing the laity, so that there may be no mistake there in political influence. Vasectomy should be performed on habitual criminals because the propagation of the criminal classes is said to be more than twice as great as the general population. In the election of delegates to the American Medical Association I recommend that the secretary of the state society and the chairman of the legislative committee be ex-officio delegates to the parent society, and that the other four delegates, to which we are entitled, be elected for a period of four years instead of two, for the purpose of obtaining greater influence in the deliberations of the national association.

Report of Committee on Public Policy and Legislation

The optometry bill, providing for a state examining and licensing board, was introduced in the senate, but not reported out of committee. A bill to give authority to boards of education for the medical inspection of public school children was enacted. An attempt to introduce a bill looking to the creation of a state examining board for nurses was frustrated. A suggestion that the house of delegates adopt resolutions placing the association in cooperation with the temperance movement in Ohio, by urging all members to comply with the intent of prohibition laws in exempting alcoholic preparations when prescribed for medicinal purposes, was duly carried out. The committee reiterated the defensive attitude necessary to be taken by the association in order to protect the Medical Practice Act against the invasion of cults and classes who are constantly seeking recognition by the state for the favor of practicing medicine in some of its branches without proper qualification before the state board.

Reports of Officers

The treasurer reported that the amount received last year from dues was $3,962.00, representing so many members of the association. The amount received from subscription, $5.00; from advertising, $3,214.00, making a total of $7,355.00, of which $7,226.00 was paid out, leaving a balance on hand of $129.00.

Election of Officers

The officers elected were named in The Journal, May 15.

Multiple Myeloma

Dr. George F. Zinninger, Canton: Judged by their histopathologic structure, in that they have a definite specific cell and a connective tissue and blood vessel stroma, together with the fact that they show distinct evidence of invasive growth by breaking through bony walls and infiltrating adjacent structures, one can hardly hesitate to regard these tumors as true neoplastic growths. If on the other hand the multiple tumors are not metastases into a single system, but tumors all of multiple inception, this seems to lend support to the view that they are due to some generalized disease most probably of an infectious etiology. These tumors always arise in the bone marrow, proliferating, and producing erosions of the bones in which they arise. In their histopathologic structure similarity is to be noted in the description of the various authors reporting the cases. They all speak of a tumor made up of a delicate stroma of connective tissue; in the meshes of the stroma are packed cells which may be round, but more often are oval or pear-shaped, having no cell wall, bearing a rather large single or multiple nucleus usually eccentrically placed and in most of them nuclei are to be found. The tumors are very vascular; the larger and smaller blood vessels ramify in the sparse connective tissue stroma. The vessels are thin-walled, and the tumor cells are in intimate relationship with the vessels. Clinically, there is constant pain over definite areas of bone having a cancellous structure, the bone developing a bulging swelling, the appearance later of definite soft tumor masses. The patient shows some emaciation, growing pallor, anemia and weakness, all of which are strongly suggestive of multiple myeloma.

Aspects of Angina Pectoris

Dr. Frank Winders, Columbus: A study of this subject may well be preceded by the statement that angina pectoris is not a distinct disease, but rather a symptom group, the etiology and pathology of which must be determined for each individual case. I accept the classification of Nothnagel, who distinguishes angina pectoris major, in which there are definite anatomic changes in the heart or its vessels, from angina pectoris minor, in which no such changes can be demonstrated. So-called minor cases are not infrequently as grave in their prognosis as the major cases. Cases which at autopsy show lesions of the heart or its vessels present either (a) disease at the first portion of the aorta or at the aortic valve, which causes interference with the entrance of blood into the coronary arteries; or (b) disease of the coronary arteries. The association of attacks of angina and disturbance of digestion has long been recognized, but it remained for Russell to give a plausible explanation of this relation. This author directs attention to the normal arterial abdominal reflex and its exaggeration as an important factor among the causes of angina pectoris. An additional factor has to do with the increase of blood pressure, following the ingestion of heavy foods and stimulating drinks and is the presence in the blood itself of products of digestion which act as irritants to the arterial coats, thereby exciting them to contraction. A continuation of these influences results in a continued arterial contraction and this in turn in a compensatory thickening of the arterial walls. Cardiac embarrassment results from the foregoing causes. A general arterial hypertonus produces a narrowing of the lumen of the vessels, which in turn causes an increase in blood pressure, and thus an increased burden is placed on the heart in its efforts to empty the left ventricle.

(*To be continued*)

MISSISSIPPI STATE MEDICAL SOCIETY

Forty-second Annual Meeting, held at Jackson, April 13, 1909

(Continued from page 1610)

The Hypodermatic Use of Quinin in Severe Malarial Infection

Dr. B. H. Booth, Drew, advocated the hypodermatic use of quinin, especially in treating children. It was more effective by this manner of administration and by so using it we avoided irritating the stomach. The administration by needle reduced the amount and number of doses and was really less objectionable than the discomfort produced by the nauseous taste of the drug. The danger of abscess formation was not great when proper care in administering and proper asepsis were observed. Any soluble salt might be used, his preference being the bimuriate.

DISCUSSION

Dr. Glass, Coahoma: In administering quinin hypodermically, too small a syringe is generally used. I have found in using the ordinary hypodermic syringe that the solution was too concentrated, too irritating; therefore, I use my antitoxin syringe, dissolving the quinin in a saline solution. When given in this way one can usually note the effect of the quinin in about forty minutes. It is important that the solution be sufficiently diluted.

Dr. E. H. Martin, Hot Springs, Ark.: When it is necessary to administer quinin hypodermically, it should be dis-

solved in a sufficient quantity, preferably a saline solution, to insure absorption. Given in this way, there is little danger of abscesses.

DR. G. H. MCNEILL, Newton: A sufficiently diluted solution can be administered with the small syringe, by detaching the bulb and refilling it as often as desired, and this can be done with only one insertion of the needle. I say this for the benefit of the physician who does not possess a large syringe.

DR. DULANEY: I am much gratified to note that the profession is getting back to the use of quinin. In administering this drug hypodermically, I dissolve 5 grains of quinin in 30 drops of water; I have no trouble with abscesses, and usually obtain good results.

DR. H. CHRISTMAS, Tchula: A physician of many years' practice was sent for in a case of hematuria. When he arrived he questioned the young physician in attendance as to what he had done for the man. The doctor replied that he had blistered him, given calomel and almost a bottle of quinin. The older physician then suggested giving the man a rest; giving him a hypodermic of atropin and something to eat, and see what the effect would be. The next morning the man was much better, and eventually recovered. He then told the young doctor the man was dying of too much doctor, and not from the disease.

DR. ASHLEY: Have any patients complained of intense pain when given quinin hypodermically? I was given quinin hypodermically and my suffering was almost unbearable. The first two injections were not so painful, but the others caused intense pain. It did not cause abscesses, only the usual knot, which I still have. The quinin was given in very diluted form, and with good effect as to the disease.

DR. COOK, Forest: Possibly the bad effects resulting from giving quinin hypodermically are caused by giving it under the skin; if injected deep into the muscles there would be no danger of abscesses. I had a patient who could not take quinin by mouth without producing a rash. She was very ill, and all other remedies had failed. I gave a diluted solution of quinin bimuriate hypodermically, putting the needle deep into the muscles. No bad effects followed, and the patient recovered.

DR. H. L. SUTHERLAND, Rosedale: I suppose that all physicians are of the opinion that quinin is the only safe remedy in malaria. The main thing, however, is to determine whether the condition is active malaria, or anemia secondary to malaria. If repeated examination of the blood does not reveal the parasite, I see no use in giving quinin, but if the examination reveals the parasite, I always give quinin. In giving it hypodermically, if in a weak solution, and the needle is put deep into the muscles, there is little danger of abscesses.

DR. B. H. BOOTH: I hope that I made it clear in the paper that if care is taken not to strike a vein there is little or no pain in the hypodermic administration of quinin.

Puerperal Eclampsia

DR. L. D. HARRISON, Clarksdale, advocated bleeding in eclampsia. The preventive treatment, the care of the patient during pregnancy, must not be neglected but when brought face to face with the condition no time is to be lost and blood should be taken, the idea being to bleed for effect and not for quantity.

DISCUSSION

DR. M. ALEXANDER, Tunica: In the days of bloodletting, this disease was looked on with dread by all practicing physicians. I can not understand why a physician should go back to the dark ages for a remedy when there is such a remedy at hand as veratrum, which in my opinion is almost specific in puerperal eclampsia, eliminating urea, which to a great extent has poisoned the system, and relieving the pressure on the nervous system.

DR. JONES: I believe in the old fogy idea, if you have a good thing, stick to it. In puerperal convulsions I consider blood letting a safe remedy. In cases of puerperal eclampsia what is needed is complete relaxation both inside and outside.

DR. M. C. ELLIS, Senatobia: When I find that I can not control convulsions with veratrum, and the pulse was still bounding, I bleed, and bleed for effect—bleed until the pulse is slower.

DR. A. E. KENNEDY, Magee: I believe in calomel in puerperal eclampsia, and plenty of it. In a case that I had some years ago, I gave 60 grs. of calomel, followed by an ounce of castor oil. The woman recovered.

DR. P. BUTLER, Little Springs: I treated the first cases of puerperal eclampsia that I had by bleeding, but in my hands bleeding was not satisfactory. Since I began to use veratrum, followed by bichlorid of mercury, I have not lost a patient with puerperal eclampsia.

DR. R. M. DONALD, Hattiesburg: In puerperal eclampsia I give large doses of veratrum, repeated if necessary, and just as soon as I can get the patient to take it, I give calomel in large doses.

DR. L. D. HARRISON: Dr. Alexander stated that he could not remember so far back when this ancient remedy of bloodletting was resorted to, but I can refer to authorities as late as 1906-1908 who advocate bloodletting in puerperal eclampsia. Veratrum, I contend, weakens the heart action, and does not aid elimination. I have never seen a case of puerperal eclampsia that was not relieved by bloodletting. I have seen patients die from all the treatments named, but I have never yet seen one die from bloodletting. The other remedies are not quick enough in their effect.

Hygiene and Prophylaxis in the Care of Children

DR. O. N. ARRINGTON, Brookhaven, entered a plea for greater care in the handling of children. Education of the laity along these lines is sadly needed, most deaths among children being from preventable conditions.

DISCUSSION

DR. ROSAMOND, Memphis, Tenn.: Too much can not be said about the necessity of the baby being given its mother's milk and that mother who can nurse her baby and won't, is morally responsible for that child's life. Another subject of grave importance is the problem of the negro nurse girl. The physician can not make too great an effort to instruct the mother along this line. The nurse girl carries the little baby into all manner of filthy dens, and the mother is sitting quietly at home, either ignorant or indifferent as to where her child is being taken. It is in these places that the baby contracts all manner of contagious and infectious diseases.

DR. ROSA WISS, Meridian: The physician should impress on the mother the importance of giving the baby water. Babies do not want it at first, but they soon acquire a taste for it. The baby who is given water is usually a healthy baby.

DR. B. L. CULLEY, Jackson: If you begin right with the baby, it is not hard to keep right, and the right way to start the baby off is at its mother's breast. I do not think that a physician should be too hasty in cutting the cord, as the baby should be allowed to get a good supply of blood to start life with. Another important point is to impress on the mother the baby's need of water. So many mothers are afraid to give the baby water, and have to be told to do this from the very beginning of the child's life. It will frequently stop a colicky baby from crying when nothing else will.

DR. COOK, Hattiesburg: When the mother has a superabundance of milk, more than the child can digest, it will suffer with colic, and will vomit up the milk constantly. I think a restriction should be made as to the quantity of milk taken.

DR. ELLIS: In cases in which the mother has a superabundance of milk, but the milk is blue, I give potassium, which lessens the quantity of milk, but increases its richness.

DR. DAVIS: When the mother gives too much milk, I find that using only one breast acts admirably. Very often mothers give more milk from one breast, and in those cases I would let the mother dry the other breast.

(*To be continued*)

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND

One Hundred and Eleventh Annual Meeting, held in Baltimore, May 13-15, 1909

Dedication of New Building

With three days of perfect May weather the Medical and Chirurgical Faculty of Maryland held its one hundred and eleventh annual meeting and celebrated the completion and occupation of its fine new library building, May 13, 14 and 15. A picture and description of the building appear in this issue of The Journal, page 1679.

The presentation address was made by Dr. Edward N. Brush, Baltimore, chairman of the building committee. "This building belongs, it is true, to the medical profession, but solely as a means of helping the citizens of the state. Here is housed a library which is in constant demand, not alone and not by any means in its broadest intention and use, for the benefit of the medical men who resort to it, but for your benefit, men and women of Maryland, and for the benefit of your families."

Felicitating addresses were also made by Dr. Abraham Jacobi, representing the New York Academy of Medicine; Dr. James Tyson, representing the College of Physicians of Philadelphia, and Dr. John W. Farlow, of the Boston Medical Library Association.

The acceptance of the building in behalf of the society was by the president, Dr. Brice W. Goldsborough, who said: "We have looked forward to this day for many months with happy anticipations, and we are not disappointed. The erection of this building has been the inspiration of our lives. It will promote harmony. It will elevate the profession out of selfishness. It will aid in the development of our fellowmen. It will establish good-fellowship. I voice the unanimous sentiment of the society when I testify to the untiring zeal, energy and devotion of the building committee." Dr. Goldsborough gave an interesting summary of the past history of the society and particularly of its recent work and made a number of suggestions for increasing its efficiency.

Legacies and Gifts

Dr. Edward N. Brush, Baltimore, chairman of the building committtee, announced that $20,000 had been left to the faculty by the will of a member whose name he was not permitted to give. Dr. William Osler, Oxford, Eng., announced a gift to the library of the first edition of Vesalius, which he purchased recently in Rome. An interesting even of the last evening of the meeting was the presentation of a portrait of Dr. William H. Stokes, formerly superintendent of Mount Hope Retreat, by Dr. Henry M. Hurd.

The Old and the New

Dr. William Osler, Oxford, Eng., delivered an address with the above title in Osler Hall. Overhanging him as he spoke was his full-length portrait in oil, the gift of his friends, and the only ornament of the room. The address will appear in full in The Journal.

Reports of Committees and Officials

The Committee on Public Instruction reported that twelve jubilee lectures had been delivered during the winter by Drs. G. M Linthicum, L. F. Barker, J. M. T. Finney, J. C. Bloodgood, W. T. Watson, Harry Friedenwald, H. O. Reik, R. T. Abercrombie, B. Holly Smith, W. P. Spratling, Misses M. E. Lent and E. N. La Motte. The lectures were delivered at the Baltimore Medical College Building, and such topics as "Hygiene of the Mouth and Eye," "Insects in Disease," "Nursing," "Physical Development," "Non-Drug Treatment," "Care of the Ear," "State Cure of Epilepties," etc., were treated. Other lectures have been given before societies, mothers' meetings, etc. In addition to this, a series of weekly articles on similar topics have appeared in the newspapers. Lectures on tuberculosis and other subjects have also been delivered in the counties. The aid of the newspapers was also sought in the effort to reach the public and weekly "Health Bulletins" were published in the Sunday papers from June 14, 1908, to the present time. These articles dealt with their subjects in a simple, popular manner and were anonymous. They were favorably received and highly appreciated by the public and also by the newspapers and have brought about kindly relations with the latter, which have not always heretofore existed. The faculty has not been called on for one cent for this work. The small amount of $15 needed being contributed by the members of the committee. The committee is proud of the fact that it instituted the first instance of such work in the country and that essentially the same plan has been adopted by the American Medical Association.

The report of the Library Committee and Librarian showed that there are now 17,533 books and 176 current journals on file. There were 4,353 readers, and 1,541 books were borrowed for home use. Portraits have been acquired of Drs. I. E. Atkinson, G. J. Preston, Russell Murdock, Moreau Forrest and a print of Rembrandt's Anatomy. Among gifts are Dr. A. D. Atkinson, 183 books; Dr. H. B. Jacobs, 77; Dr. William Osler, 22; Miss Miller, 135; Dr. Charles O'Donovan, 24; etc. Dr. Jacobs gave complete sets of the *Annales de l'Institute Pasteur*, and of the *Bulletin et Mémoire de l'Académie Impériale de Médecine*. Dr. Osler gave a first edition of Vesalius. The library will be open hereafter with a trained attendant on hand till 10 p. m.

The Committee on Sanitary and Moral Prophylaxis reported that a woman had been engaged in instructing women and children along the lines of sex hygiene. Much literature has been distributed and lectures have also been given by members of the society in the counties. Arrangements have been made to give annual lectures at the medical schools on prophylaxis of venereal disease, inculcating that the prostitute is really nothing more nor less than a focus of infection. To ascertain the sentiment regarding sexual necessity 1,014 letters were sent out to physicians and 615 replies were received. There were 484 who did not believe that health was affected by entire abstention, while 105 asserted the contrary, and 26 were non-committal; indicating that one doctor in every ten in this state is sanctioning the use of prostitutes by unmarried men, a striking result as coming from a body of scientific men and one which can not fail to increase the prevalence of venereal disease. To carry on the work $3,043.78 has been raised by dues and contributions, of which $2,803.31 has been disbursed in salaries and running expenses. The Medical Society of Social Hygiene co-operates with the committee. The committee recommends that teaching on sex hygiene be made a part of the medical course in the schools and that action be taken by the society on the question of vasectomy in criminals, insane and imbecile.

The secretary reported an unusually successful year both as to finances and organization. The county societies are in an active and healthy condition, except that of St. Mary's County. The Garrett and Allegany County societies have united, owing to the difficulty in keeping up the first named.

The trustees reported that the property of the faculty on Hamilton Terrace had been sold in fee for $9,000. The building and site cost about $90,000. The present debt is about $32,000.

The Committee on Lay Press reported that cordial relations had been established with the papers, which could not fail to benefit the profession and the public.

Reciprocity

The Board of Medical Examiners reported that Maryland is now in reciprocal relations with Maine, New Hampshire, Vermont, Virginia, West Virginia, District of Columbia, Georgia, South Carolina, Texas, Kentucky, Missouri, Kansas, Nebraska, Oklahoma, Iowa, Minnesota, Michigan, Wisconsin, Illinois, Indiana and Ohio. In a number of states the law makes no provision for recognition of licenses of other states and the Maryland law forbids recognition of licenses of such states. New Jersey has severed its reciprocal relationship on account of differences of preliminary requirements. Delaware and Ohio have also raised their requirements. Accordingly, the Medical Colleges of Baltimore have responded to the demands that those entering on the study of medicine shall be possessed of the preliminary education regarded as essential by those representing the best sentiment on this subject, and the Boards of Medical Examiners of Maryland now interpret the wording of the law, "a competent common school education," to mean "a completed high school education" and no

applicant is admitted for examination to either board who can not give proof of such requirements. The board declares in unmistakable terms its intention to follow and punish the illegal practitioner of medicine, and appended to the report are the results of thirty-two prosecutions of offenders made during the year. At present it does not seem feasible to conduct examinations in laboratories or at the bedside, and the method in vogue will probably continue.

Officers Elected

The following are the officers elected for the ensuing year: President, G. Milton Linthicum, Baltimore; vice-presidents, Drs. Philip Briscoe, Mutual, and Compton Riely and Arthur P. Herring, Baltimore; secretary, Dr. John Ruhräh, Baltimore; treasurer, Dr. William S. Gardner, Baltimore; trustee, Dr. Daniel E. Stone, Mount Pleasant; members State Board of Medical Examiners, Drs. Brice W. Goldsborough, Cambridge, and Louis B. Henkel, Jr., Annapolis; councilors, Drs. Guy Steele, Cambridge; Arthur Hawkins, Cumberland, and David Street, Baltimore; delegate to the American Medical Association, Dr. Lewellys F. Barker, Baltimore; alternate, Dr. Samuel T. Earle, Baltimore; committee on scientific work and arrangement, Drs. Joseph Chatard, Arthur M. Shipley and Isaac R. Pels, Baltimore; committee on public policy and legislation, Drs. C. Hampson Jones, and John D. Blake, Baltimore, and W. Frank Hines, Chestertown; library committee, Drs. J. Whitridge Williams, H. Barton Jacobs, Harvey W. Cushing, Gordon Wilson, and Carey B. Gamble, Baltimore; memorial committee, Drs. Joseph T. Smith, Baltimore; Walton Bolgiano and George H. Cairnes, Baltimore; William C. Stone, Ellicott City, and Thomas H. Brayshaw, Glen Burnie; committee on sanitary and moral prophylaxis, Drs. Donald R. Hooker, Lilliam Welsh, Hugh H. Young, O. Edward Janney, and Andrew H. Whitridge, Baltimore; committee on tuberculosis, Drs. Jacob H. Pleasants, John W. Chambers, Richard B. Norment, and Sylvan Rosenheim, Baltimore, and Philip L. Travers, Easton; committee on pure food law, Drs. Nathan R. Gorter, Samuel J. Fort, and Edward L. Whitney, Baltimore, and committee on funds for widows and orphans, Drs. Eugene F. Cordell, Theodore E. Cook and G. A. Christian Deetjen, Baltimore; Richard W. Trapnell, Point of Rocks, and Jacob L. Noble, Preston.

(*To be continued*)

Medical Education and State Boards of Registration

STATE BOARD STATISTICS FOR 1908

The Annual Presentation of the Results of State Board Examinations with Analyses and Deductions

On pages 1698 to 1713 will be found four tables, A, B, C and D, giving in detail the results of the various state medical license examinations held during 1908. Reports from Oklahoma were received for only one of the two examinations held; otherwise our returns are complete.

These tables have been arranged so that reading from left to right gives the results by colleges, showing how many graduates appeared for examination in each state and whether they passed or failed, as well as the total number examined during the year, the number who passed, the number who failed, the percentage of failure and the number of states in which graduates of each school appeared for examination. Reading from above downward gives the results by states, showing the number registered and rejected from each college, the total number examined, the total number registered, the total number rejected and the percentage of rejections. The fact that the majority of graduates take the license examination in the state in which the college is located is shown by the dark diagonal zone, made by the grouping of figures, passing from the left upper to the right lower corner of each table. These tables are worthy of much careful study and many important deductions are possible.

GRADUATES OF ALL YEARS EXAMINED IN 1908

Table A shows the results for all candidates who took examinations in 1908 regardless of the years in which they graduated. This shows that altogether 7,770 were examined last year, as compared with 7,271 in 1907 and 8,035 in 1906. Of those examined, 21.7 per cent. failed, as compared with 21.3 in 1907, 20.7 per cent. in 1906 and 20.8 per cent. in 1905.

There were 137 of the medical colleges in the United States which had graduates examined. Foreign graduates were examined in 31 states, the total number being 160. The largest number examined in any state was 85, in New York, doubtless because that state has the leading port of immigration. Graduates of Canadian schools were examined in 31 states, more appearing naturally in the border line states.

GRADUATES OF 1908 EXAMINED DURING 1908

Table B gives the results for the graduates of 1908 who were examined during the year by state boards and shows that 4,388 or 56.5 per cent. of all candidates examined during the year graduated in 1908. Educational statistics show that the medical colleges of the United States graduated 4,741 students last year; therefore about 90 per cent. of all 1908 graduates took examinations for license during the year. In some of the states graduates in medicine are allowed to serve their hospital interneships without first becoming licensed practitioners, which doubtless accounts for some of the remaining 10 per cent. Of those examined 607 or 13.8 per cent. failed. An analysis of this table shows that of all the 1908 graduates examined 2,823 or 64.4 per cent. were examined in the states in which the colleges from which they graduated were located. This shows that states which sanction low grade colleges are not only responsible for the ill-prepared output of such colleges, but are themselves the recipients of the greater portion of such output.

RECENT GRADUATES EXAMINED DURING 1908

Table C gives the results for graduates of 1903 to 1908 inclusive which were examined during 1908. It includes, therefore, the figures given in Table B. This table is particularly important since it deals with recent graduates and is, therefore, the fairest basis for comparison between colleges. Any classifications of medical colleges from the standpoint of failures at state board examinations should be based on this table. Of all candidates examined in 1908, 6,477 or 83.3 per cent. were recent graduates, and of this number 17.8 per cent. failed, as compared with 21.7 per cent. for all candidates.

OLD PRACTITIONERS EXAMINED IN 1908

Table D is interesting because it shows the results for candidates who graduated in 1902 or previously. The total number examined was 796 or 10.3 per cent. of all candidates examined, as compared with 675 in 1907 and 793 in 1906. This year, of those examined, 251 or 31.5 per cent. failed, as compared with 17.8 per cent. of failures for recent graduates. This total should decrease each year as advances are made in reciprocity. As a rule, the states examining the largest numbers are those which do not reciprocate with other states. A comparison with Table N will be of interest in this connection.

UNDERGRADUATES EXAMINED DURING 1908

Line 141 of Table A shows the number of undergraduates examined in nine different states during 1908. Altogether 494 were examined, as compared with 674 in 1907 and 703 in 1904. The states in which undergraduates appeared, arranged in the order of the number examined, were: Mississippi, 182; Arkansas, 130; Tennessee, 100; Massachusetts, 37; Alabama, 36; Rhode Island, 6, and 1 each in Kansas, North Carolina and Virginia. Legislation requiring graduation of all applicants has since been secured in Alabama, Arkansas and Rhode Island which will greatly reduce the figures in future reports. Of the 494 undergraduates examined, 281 or 56.8 per cent. failed.

COMPARISON WITH PREVIOUS YEARS

A study of the totals and percentages as compared with previous years is of interest. The totals of those examined show a decrease from last year, while the percentage of failures is somewhat higher.

COMPARISON WITH PREVIOUS YEARS (TABLES A, C AND D).

Year.	Total Examined.	Examined—Passed.	Examined—Failed.	Percentage Failed.	Recent Grads. Examined.	Percentage Failed.	Older Pract. Examined.	Percentage Failed.	Non-Grads. Examined.	Percentage Failed.	Regist'd Without Written Examination.	Total Registered.
1904	7035	5672	1363	19.3	4773	14.1	579	29.7	515	52.6	999	6671
1905	7170	5680	1490	20.8	6054	16.2	690	37.7	472	61.9	391	6074
1906	8035	6368	1667	20.7	6529	16.4	793	27.1	703	51.3	1497	7865
1907	7271	5723	1548	21.3	5922	15.1	675	27.7	674	69.6	1426	7149
1908	7770	6084	1686	21.7	6477	17.8	796	31.5	491	56.8	1276	7369

Other deductions from the larger tables have been made and are presented in Tables E to N which are worthy of careful study.

STUDY OF COLLEGES BY STATE GROUPS

Table E is based on the first four large tables and gives data regarding the group of colleges located in each state. It shows what states are furnishing the largest numbers of physicians and the failure percentages show what kind of training these colleges are furnishing, so far as may be judged from the failures of their graduates before state boards. By comparing the percentages of the first column with the other columns it can be seen whether there has been any reduction in failures in recent years. Of the 33 states having medical colleges, 18 furnished 100 or more candidates examined. Of these 18 groups of colleges, only 4 had failure percentages of 10 per cent.; 8 had failure percentages between 10 and 20, and 6 had over 20 per cent. of failures. The highest failure percentage was obtained by the Mississippi group. Of the states having 100 or more examined, however, the highest failure percentage was obtained by the Tennessee group, which had 35.7, followed by the Kentucky group, with 33.8 per cent. Other deductions are given with the table.

TABLE E.—COLLEGES GROUPED BY STATES
Showing Number Examined and Percentage of Failures.

All Colleges of	Graduates. Of 1908. Number Examined.	Of 1908. Per Cent. Failed.	Of 1903 to 1908. Number Examined.	Of 1903 to 1908. Per Cent. Failed.	Of 1902 and Previous. Number Examined.	Of 1902 and Previous. Per Cent. Failed.	Of all years. Number Examined.	Of all years. Per Cent. Failed.	State Rank According to Number Examined	Rank According to Success at Examinations.
Alabama	30	13.3	34	11.8	3	33.3	37	13.5	26	11
Arkansas	4	50.0	5	60.0	3	33.3	8	50.0	31	28
California	97	22.7	158	33.5	10	30.0	168	33.3	10	25
Colorado	37	13.5	58	12.0	2	0.	60	11.7	21	12
Connecticut	25	0.	49	0.	3	0.	52	0.	23	1
Dist. of Col.	70	21.4	152	25.7	5	40.0	157	26.1	11	25
Georgia	121	13.2	137	15.3	11	45.5	148	17.6	13	21
Illinois	548	9.3	751	11.1	92	28.3	843	12.9	1	13
Indiana	75	0.	81	1.2	1	100.0	82	2.4	18	2
Iowa	100	13.0	127	15.7	7	28.6	134	16.4	15	18
Kansas	41	2.4	57	10.5	5	20.0	62	11.3	20	10
Kentucky	93	33.3	127	31.5	9	66.7	136	33.8	14	26
Louisiana	115	7.0	139	10.1	16	25.0	155	11.6	12	11
Maine	28	10.7	34	8.8	2	0.	36	8.3	27	6
Maryland	285	19.3	527	24.5	40	20.0	567	24.2	5	21
Massachusetts	159	13.2	269	16.7	22	13.6	291	16.5	7	19
Michigan	113	2.7	144	4.2	29	31.0	173	8.7	9	7
Minnesota	67	19.3	114	20.2	7	14.3	121	19.8	16	22
Mississippi	14	78.6	18	77.8	..	....	18	77.8	30	30
Missouri	430	16.7	526	21.3	35	48.6	561	23.0	6	23
Nebraska	86	8.1	110	14.5	11	27.3	121	15.7	16	17
New Hampshire	6	0.	15	6.7	8	37.5	23	17.4	29	20
New York	349	1.7	536	2.1	35	20.0	571	3.2	3	3
North Carolina	73	24.7	95	30.5	..	....	95	30.5	17	24
Ohio	167	4.2	201	6.5	31	35.5	232	10.3	8	8
Oregon	21	47.6	43	56.0	1	0.	44	54.5	25	29
Pennsylvania	464	3.4	640	5.8	60	18.3	700	6.9	2	5
South Carolina	17	5.9	24	8.3	4	50.0	28	14.3	28	15
Tennessee	328	31.1	498	36.3	71	31.0	569	35.7	4	27
Texas	26	3.8	41	2.4	4	25.0	45	4.4	24	4
Vermont	32	9.4	60	13.3	6	33.3	66	15.2	19	16
Virginia	91	5.5	124	9.7	10	0.	134	9.0	15	8
Wisconsin	44	11.4	53	11.3	1	0.	54	11.1	22	9
Totals Ex'd 1908	4156	12.7	5947	16.2	544	27.9	6491	17.2	..	..

This table gives data relating to the group of colleges in each state. For example, it shows that of all the medical schools in New York 571 graduates of various years were examined by state boards during 1908, of which number 3.2 per cent. failed. Of the 536 who graduated in recent years, however (1903 to 1908 inclusive), only 2.1 per cent. failed, while of the 35 who graduated previous to 1903, 20 per cent. failed.

The fifth column gives the rank of each state group of colleges according to the number of applicants. The Illinois group of colleges leads, having 843 graduates examined by state boards during 1908, followed by Pennsylvania with 700, New York with 571, Tennessee with 569 and Maryland with 567.

The sixth column gives the rank of each state group of colleges according to the success of the graduates at state board examinations. It is interesting to compare the figures of these two last columns. While the Illinois group ranks first according to the number examined it ranks thirteenth in the success of its graduates at examinations. While Pennsylvania ranks second as to the number examined, it ranks fifth as to the success of the graduates.

STUDY OF LARGER COLLEGES

Table F is also based on the first four tables and gives the results of state board examinations as they affect the 45 largest medical colleges. Although these schools represent less than one-third of all medical colleges in the United States, they furnish 4,421 or about 60 per cent. of all the candidates for license. Of these colleges, even with the graduates of 1908, many show extremely high failure percentages. Of the 19 colleges having 100 or more examined, five stand out prominently with failure percentages of over 30 per cent.

Altogether for these schools 686 or 15.5 per cent. failed, as compared with 20.8 per cent. of failure for the 2,070 candidates from the 92 colleges having less than 50 each examined.

COMPARISON WITH PREVIOUS YEARS (FROM TABLE F).

Year.	Colleges Represented.	Total Examined.	Per Cent. Failed.	Colleges, 100 or More Examined.	Total Examined.	Per Cent. Failed.	Colleges, 50 to 100 Examined.	Total Examined.	Per Cent. Failed.	Colleges, less than 50 Examined.	Total Examined.	Per Cent. Failed.	Foreign and Undergrads. Examined.	Per Cent. Failed.
1904	149	6241	16.4	14	2271	11.7	28	1817	16.9	107	2153	21.0	794	43.1
1905	153	6411	18.3	14	2350	12.4	37	2543	17.7	102	1518	28.9	759	41.1
1906	146	6938	17.3	16	2504	14.5	34	2381	16.9	96	2043	21.3	1097	42.5
1907	146	6207	13.8	12	1626	12.7	36	2578	14.7	98	2003	13.6	1064	55.5
1908	137	6491	17.2	19	2596	15.6	26	1825	15.5	92	2070	20.8	1279	44.6

Besides the graduates of the medical colleges of the United States, 1,279 candidates were examined, made up of foreign college graduates, graduates of miscellaneous colleges and non-graduates, of which number 44.6 per cent. failed.

RESULTS IN HOME STATES AND ELSEWHERE

Table G is of much interest because it shows what portion of the candidates from each college took their examinations in the state where the college was located and what portion went elsewhere. Of the 5,948 recent graduates examined by state boards in 1908, 3,429 or 57.6 per cent. took their license examinations in the home state. Of this number 13.2 per cent. failed, while of those who went to other states 20.3 per cent. failed. The table allows a similar comparison of percentages to be made for each college as well as for each state group of colleges, the latter being shown in heavy faced type. A further description appears with the table.

TOTAL RESULTS FOR FIVE YEARS

Table H shows, so far as reports were obtainable, the number registered and the number rejected in each state for each of the past five years. A comparison of this table with the statistics in the last educational number of THE JOURNAL (Aug. 15, 1908, p. 586), shows what would be expected, that the states having the largest number of medical graduates examine the largest number of physicians. In 1904 several states registered all or the majority of their applicants on the presentation of satisfactory credentials without written examinations. Now only one state, New Mexico, will register candidates on presentation of a diploma, without examination.

This table shows only those registered by examination. Another table (M) shows the total registration by all methods.

CLASSIFICATION OF COLLEGES

Tables I, J, K and L give a classification of the medical colleges of the United States on the basis of the failure of their graduates at state board examinations during the past year. This classification is based on the examination of *recent graduates* as shown in Table C. In forming definite conclusions, the cautions hereinafter given should be observed, of noting the number examined, the number of states in which representatives appeared and the character of the boards making the examination. To form a more exact judgment one should compare the percentage of failures received by any college this year with those received in the classifications published in previous years.

Table I gives a list of 48 colleges which obtained failure percentages below 10 per cent., 20 of which had no failures whatsoever and 31 had less than 5 per cent. The failure percentage for the entire group was 3.6. Table J shows 29 colleges whose failure percentages were between 10 and 20 per cent., of which number 18 had percentages below that for the group, which was 14.1. Table K includes 46 colleges having failure percentages of 20 per cent. and above, of which number 32 had above 30 per cent., 20 had above 40 per cent. and 10 had percentages of 50 per cent. or above. The highest percentages of failures were 77.8, 75.0 and 66.7, three schools receiving the last given. The percentage for all candidates from this group of colleges was 35.8. In Table L have been placed a number of colleges in regard to which data was insufficient to allow of fair comparison. This list contains 14 colleges, to which should be added the Epworth College of Medicine of Oklahoma, for which no examinations were reported.

COMPARISON WITH PREVIOUS YEARS

	Less than 10 Per cent.	10 to 20 Per cent.	Above 20 Per cent.	Unclassified.	Total.
1904	47	27	38	37	149
1905	45	22	40	46	153
1906	62	24	43	20	149
1907	64	27	39	18	148
1908	48	29	46	15	138

A comparison of the classification this year with those of previous years shows a decrease in the number of colleges having less than 10 per cent. of failures and an increase in those having above 20 per cent.

TABLE F.—COLLEGES HAVING 50 OR MORE EXAMINED

TABLE SHOWS TOTAL NUMBER EXAMINED, PERCENTAGE OF FAILURES AND NUMBER OF STATES IN WHICH EACH COLLEGE HAD REPRESENTATIVES

Name of College.	Graduates, All Years.			Graduates of 1903-1908.			Graduates, 1902 and previous.			Graduates of 1908.			Marginal Number.
	No. Examined.	Per Cent. Failed.	No. States.	No. Examined.	Per Cent. Failed.	No. States.	No. Examined.	Per Cent. Failed.	No. States.	No. Examined.	Per Cent. Failed.	No. States.	
Jefferson Medical College	232	8.6	33	209	6.2	32	23	30.4	14	141	5.7	24	110
College of Physicians and Surgeons, Chicago	199	12.6	25	179	10.1	21	20	35.0	12	126	8.7	12	28
University of Pennsylvania, Department of Medicine	196	1.0	27	176	0.6	23	20	0.	11	130	0.	14	113
Baltimore Medical College	171	34.5	21	161	34.8	21	10	30.0	8	81	23.4	14	52
Northwestern University Medical School	167	3.0	21	161	3.1	20	6	0.	5	128	3.1	15	34
Tulane University of Louisiana, Medical Department	135	6.7	13	122	5.7	11	13	15.4	7	103	3.9	8	49
Rush Medical College	130	6.9	24	91	1.1	17	39	20.6	19	57	1.8	5	35
Meharry Medical College	129	50.5	19	125	50.4	17	4	50.0	3	84	44.0	15	121
University of Louisville, Medical Department	128	32.0	28	119	29.4	26	9	66.7	8	88	31.8	19	47
University of Maryland, School of Medicine	124	17.7	23	111	19.8	20	13	0.	11	64	14.1	11	56
Columbia University, College of Physicians and Surgeons	124	4.8	19	110	2.7	14	14	21.4	10	49	4.1	3	86
Tufts College Medical School	115	13.0	16	110	12.7	13	5	20.0	4	72	11.1	6	61
University of Michigan, College of Medicine	112	8.0	21	94	2.1	16	18	38.9	10	73	1.4	10	64
Memphis Hospital Medical College	111	35.1	9	94	36.2	9	17	29.4	7	76	35.5	7	120
Washington University, Medical Department, St. Louis	107	12.1	10	105	12.4	9	2	0.	2	88	11.4	3	79
College of Physicians and Surgeons, Baltimore	107	11.3	26	93	8.6	19	14	28.6	11	57	7.0	10	53
Long Island College Hospital	105	7.6	8	102	5.9	7	3	66.7	3	58	3.4	3	80
Barnes Medical College, St. Louis	104	30.8	22	95	28.4	20	9	55.6	8	65	16.9	11	71
St. Louis University, School of Medicine	100	13.0	11	100	13.0	11	.....	.....	.....	87	9.2	8	75
Harvard Medical School	98	8.2	19	85	9.4	15	13	0.	9	41	0.	8	60
[illegible]ge, Philadelphia	95	7.4	14	91	6.6	14	4	25.0	3	69	1.4	6	111
[illegible]icine and Surgery	94	8.5	16	94	8.5	16	.....	.....	.....	86	7.0	11	26
[illegible] Hospital Medical College	94	2.1	8	91	2.2	7	3	0.	3	69	2.9	5	93
University of Nashville, Medical Department	90	18.9	18	81	18.5	17	9	22.2	4	53	19.0	14	123
University Medical College, Kansas City	82	14.6	11	75	13.3	8	7	28.6	6	66	12.1	6	78
George Washington University, Department of Medicine	76	30.3	16	76	30.3	16	.....	.....	.....	34	26.5	9	47
Indiana University School of Medicine	76	0.	3	76	0.	3	.....	.....	.....	71	0.	2	36
Western Pennsylvania Medical College, Pittsburg	76	19.7	7	74	20.3	6	2	0.	2	59	10.2	4	114
Johns Hopkins Medical School	73	2.7	22	72	2.8	22	1	0.	1	33	3.0	12	54
St. Louis College of Physicians and Surgeons	73	47.9	18	64	43.7	15	9	77.8	7	51	41.2	9	76
State University of Iowa, College of Medicine	70	15.7	8	65	13.8	6	5	40.0	4	50	12.0	2	40
Cornell University Medical College	69	0.	8	68	0.	8	1	0.	1	45	0.	2	87
University of Minnesota, College of Med. and Surg.	68	11.8	11	64	12.5	10	4	0.	4	32	9.4	6	66
Leonard School of Medicine	67	34.3	12	67	34.3	12	.....	.....	.....	52	28.9	10	95
Hahnemann Medical College, Chicago	66	21.2	19	57	21.1	14	9	22.2	9	43	18.6	8	29
University of Vermont, College of Medicine	66	15.2	12	60	13.3	11	6	33.3	4	32	9.4	4	132
Creighton Medical College	64	23.4	13	61	19.7	11	3	100.0	2	45	13.3	7	80
Maryland Medical College	60	50.0	19	58	50.0	18	2	50.0	2	19	52.6	10	55
Atlanta School of Medicine	58	20.7	7	57	19.3	7	1	100.0	1	53	17.0	7	21
University of Tennessee, Department of Medicine	54	38.9	16	39	35.9	11	15	46.7	9	26	23.1	8	124
Yale Medical School, New Haven	52	0.	10	49	0.	10	3	0.	2	25	0.	5	16
University College of Medicine, Richmond	52	5.8	9	48	6.3	9	4	0.	3	43	2.3	6	135
University of Buffalo, Medical Department	51	0.	5	47	0.	2	4	0.	4	31	0.	1	94
Medical College of Virginia, Richmond	51	9.8	6	50	10.0	6	1	0.	1	42	4.8	3	133
Albany Medical College	50	2.0	8	45	0.	4	5	20.0	5	33	0.	1	85
Totals	4421	15.5	.....	4071	14.5	.....	350	26.9	.....	2830	11.6	....	....

This table is especially interesting, since it gives data relating to the 45 larger medical colleges arranged according to the number of graduates examined. This allows of comparisons between colleges having classes of nearly equal size.

Of the 19 colleges having 100 or more examined, only 8 have failure percentages of 8.5 or less, while 5 stand out prominently with large failure percentages of 30.8, 32.0, 34.5, 35.1 and 50.5. This marked difference holds even in respect to recent graduates (of 1903 to 1908, inclusive).

Of the 26 colleges having between 50 and 100 graduates examined, 12 had failure percentages less than 10; 6 had failure percentages between 10 and 20, and 8 had failure percentages above 20, the 3 highest having 38.9, 47.9 and 50 per cent.

The average percentages of failures for these larger colleges, for graduates of 1902 and previous years, was 26.9; for graduates of 1903 to 1908, inclusive (recent graduates), 14.5; for graduates of 1908, 11.6, and for graduates of all years, 15.5. Of the 45 colleges, 23 obtained failure percentages below the average. Of the 6,491 college graduates examined by state boards in 1908, these larger schools furnished 4,421, or 68.1 per cent.

of different states in which a school's graduates have been examined is important. The larger this number the more accurate will be the conclusions. Again, the character of the boards making the examination and the methods employed by them are important factors to be considered, since some boards mark severely while others, which is especially true of partisan boards, may be very lenient. Finally in this connection it should be stated that the character of the license examination as usually conducted at the present time is such that graduates of colleges operated largely on quiz-class methods may be most successful in passing them. Therefore, the statistics herewith presented should be taken only as part of any investigation of medical schools, although it is an important part.

TABLE J.—Colleges Having Between 10 and 20 Per Cent. of Failures Before State Boards in 1908. Based on Table C.

College.	Total Examined	Number Passed.	Number Failed.	Per Cent. Failed.	No. of States.
CALIFORNIA					
Cooper Medical College	33	28	5	15.2	2
University of California, Med. Dept.	22	18	4	18.2	5
COLORADO					
Denver and Gross College of Medicine	40	35	5	12.5	14
DISTRICT OF COLUMBIA					
Georgetown Univ. School of Med.	30	26	4	13.3	13
GEORGIA					
Atlanta School of Medicine	57	46	11	19.3	7
ILLINOIS					
American Medical Missionary Coll.	26	23	3	11.5	11
Bennett Coll. of Eclec. Med. and Surg.	35	29	6	17.1	8
College of Physicians and Surgeons	179	161	18	10.1	21
IOWA					
Drake Univ., Col. of Med. and Surg.	32	26	6	18.7	4
State Univ. of Iowa., Coll. of Med.	65	56	9	13.8	6
State Univ. of Iowa, Homeo. Dept.	10	9	1	10.0	2
MARYLAND					
Univ. of Maryland, School of Medicine	111	89	22	19.8	20
MASSACHUSETTS					
Boston University School of Medicine	31	27	4	12.9	6
Tufts College Medical School	110	96	14	12.7	13
MICHIGAN					
Detroit College of Medicine	35	31	4	11.4	5
MINNESOTA					
Univ. of Minn., Coll. of Med. and Surg.	64	56	8	12.5	10
MISSOURI					
Kansas City Hahnemann Medical Coll.	15	13	2	13.3	5
St. Louis University School of Med.	100	87	13	13.0	11
University Med. College, Kansas City	75	65	10	13.3	8
Washington University Medical Dept.	105	92	13	12.4	9
NEBRASKA					
Creighton Medical College	61	49	12	19.7	11
Lincoln Medical College	19	17	2	10.5	4
OHIO					
Miami Medical College	27	23	4	14.8	8
TENNESSEE					
[illegible] of Phys. and Surgs., Memphis	11	11	2	15.4	3
[illegible]rsity of Nashville, Medical Dept.	81	66	15	18.5	17
VERMONT					
[illegible]niversity of Vermont, College of Med.	60	52	8	13.3	11
VIRGINIA					
Medical College of Virginia	50	45	5	10.0	6
University of Virginia, Dept. of Med.	26	22	4	15.4	11
WISCONSIN					
Marquette University, Medical Dept.	42	37	5	11.9	5
Totals	1552	1335	219	14.1	..

In Conclusion

Our endeavor in the publication of these statistics has been to give an absolutely fair presentation of actual facts, knowledge of which is always beneficial. We feel sure this exposition of the results of the examination of applicants for license to practice medicine in the United States will help in the advancement of medical education in this country. Our acknowledgments are due to the state licensing boards whose ready cooperation and complete reports have made the publication of these data possible.

TABLE K.—Colleges Having Over 20 Per Cent. of Failures Before State Boards in 1908. Based on Table C.

College.	Total Examined.	Number Passed.	Number Failed.	Per Cent. Failed.	No. of States.
ALABAMA					
University of Alabama, Medical Dept.	20	16	4	20.0	4
ARKANSAS					
University of Arkansas, Med. Dept.	4	1	3	75.0	4
CALIFORNIA					
California Eclectic Medical College	5	2	3	66.7	3
Coll. of Phys. and Surgs., Los Angeles	14	8	6	42.8	3
Coll. Phys. and Surgs., San Francisco	34	16	18	52.9	4
Hahnemann Med. Coll. of the Pacific	7	4	3	42.9	2
University of Southern California	41	27	14	34.2	3
DISTRICT OF COLUMBIA					
Geo. Washington Univ., Dept. of Med.	76	53	23	30.3	16
Howard University, Medical Depart.	46	34	12	26.1	16
GEORGIA					
Medical College of Georgia	45	36	9	20.0	7
ILLINOIS					
Hahnemann Med. Coll. and Hospital	57	45	12	21.1	14
Illinois Medical College	33	25	8	24.2	9
Jenner Medical College	38	26	12	31.6	3
National Medical University	16	9	7	43.8	7
INDIANA					
Physio-Medical College of Indiana	5	4	1	20.0	2
IOWA					
Sioux City College of Medicine	20	16	4	20.0	4
KANSAS					
Kansas Medical College	17	12	5	29.4	6
KENTUCKY					
Louisville National Medical College	6	2	4	66.7	4
University of Louisville, Medical [illegible]	119	84	35	29.4	26

TABLE M.—REGISTRATIONS BY STATE BOARDS DURING 1908

States.	By Examination. Graduates, 1903-1908.	By Examination. Graduates, 1902 and Previous.	By Examination. Non-graduates.	By Reciprocity.	Without Written Exam. or Under Exemption.	Total Registered.
Alabama	54	3	9	.....	.....	66
Arizona	22	14	.....	.....	.....	36
Arkansas	44	9	67	.....	22	142
California	115	30	.....	.....	.....	145
Colorado	48	4	.....	150	1	203
Connecticut	60	7	.....	2	.....	69
Delaware	8	3	.....	3	.....	14
District of Columbia	49	4	.....	.....	.....	53
Florida	53	26	.....	.....	.....	79
Georgia	143	7	.....	33	3	186
Idaho	36	16	.....	.....	.....	52
Illinois	622	24	.....	45	.....	691
Indiana	163	9	.....	24	.....	196
Iowa	136	3	.....	56	.....	195
Kansas	106	10	.....	104	4	224
Kentucky	106	1	.....	5	25	137
Louisiana	133	7	.....	4	.....	149
Maine	90	2	.....	3	.....	95
Maryland	130	2	.....	22	8	162
Massachusetts	211	22	5	.....	.....	238
Michigan	104	9	.....	54	9	176
Minnesota	74	2	.....	65	.....	141
Mississippi	60	5	73	.....	.....	138
Missouri	176	5	.....	14	.....	195
Montana	44	7	.....	.....	.....	51
Nebraska	90	13	.....	79	.....	182
Nevada	9	8	.....	15	.....	32
New Hampshire	35	2	.....	4	3	44
New Jersey	82	7	.....	84	.....	173
New Mexico	19	11	.....	.....	103	133
New York	627	52	.....	72	.....	751
North Carolina	89	6	.....	8	.....	103
North Dakota	45	7	.....	17	.....	69
Ohio	170	12	.....	34	.....	216
Oklahoma	29	5	.....	.....	.....	34
Oregon	28	15	.....	.....	.....	43
Pennsylvania	466	19	.....	.....	.....	485
Rhode Island	23	3	3	.....	.....	29
South Carolina	46	1	.....	.....	.....	47
South Dakota	46	12	.....	.....	.....	58
Tennessee	146	12	55	26	.....	239
Texas	102	41	.....	83	.....	226
Utah	25	2	.....	14	.....	41
Vermont	41	4	.....	6	.....	51
Virginia	117	10	1	13	.....	141
Washington	130	52	.....	.....	.....	182
West Virginia	98	4	.....	.....	.....	102
Wisconsin	65	15	.....	39	1	120
Wyoming	6	1	.....	14	.....	21
Totals	5326	545	213	1092	184	7330

This table shows the total number registered during 1908 in each state by the various methods. The first column shows the recent graduates registered, the second column, the old practitioners (graduates of 1902 and previous years), the third column the non-graduates, and the fourth column shows the number licensed through recipro[illegible] to note that states which have registered [illegible] reciprocity have examined very few "old [illegible] ief exception is New York, which has arranged reciprocal relations with only five other states. The fifth column shows those registered without written examination under various exemption clauses. The last column shows the total number of physicians registered in each state during the year.

TABLE N.—PHYSICIANS REGISTERED THROUGH RECIPROCITY BY STATE EXAMINING BOARDS DURING 1908

State Board of	Total Reg. Through Reciprocity by Each State.	Alabama.	Arizona.	California.	Colorado.	Connecticut.	Delaware.	Dist. of Columbia.	Georgia.	Idaho.	Illinois.	Indiana.	Iowa.	Kansas.	Kentucky.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	Mississippi.	Missouri.	Nebraska.	Nevada.	New Hampshire.	New Jersey.	New Mexico.	New York.	North Carolina.	North Dakota.	Ohio.	Oklahoma.	Oregon.	Pennsylvania.	Rhode Island.	South Carolina.	South Dakota.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.
Colorado	150	4	1	2	..	2	1	1	..	1	29	2	13	6	2	1	1	3	4	..	..	19	3	2	..	..	1	10	..	..	6	3	1	13	1	..	1	3	4	2	1	1	3	3
Connecticut	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Delaware	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Georgia	33	..	..	..	..	..	..	4	..	..	..	1	1	..	4	1	2	..	5	..	..	1	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	7	..	..	..	2	..	1
Illinois	45	..	..	..	..	..	..	..	..	..	..	8	9	6	..	1	3	..	4	2	..	..	3	..	..	2	..	..	..	..	3	..	..	..	..	..	..	1	..	..	..	..	..	3
Indiana	24	..	..	..	..	..	..	..	..	..	4	..	..	2	5	..	..	..	5	1	..	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1	2
Iowa	53	..	..	..	..	..	..	..	1	..	27	..	..	3	..	2	2	..	3	1	..	5	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Kansas	104	..	..	..	3	..	..	..	..	..	34	7	13	..	14	..	1	..	3	1	..	..	19	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	5
Kentucky	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	..
Louisiana	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
Maine	3	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Maryland	22	..	..	..	..	..	..	4	1	..	2	1	1	..	..	2	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	5	2
Michigan	54	..	..	..	2	..	..	..	1	..	21	2	2	..	..	1	1	..	..	1	..	1	4	..	..	..	..	5	..	..	7	..	..	..	..	..	..	..	..	..	..	..	1	5
Minnesota	65	..	..	..	..	..	..	..	..	..	21	1	14	1	1	1	1	..	1	..	..	2	..	1	..	2	..	1	..	2	5	..	..	..	..	..	..	..	..	..	1	..	..	..	10
Missouri	14	..	..	..	1	..	..	..	..	..	..	..	3	..	3	1	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..
Nebraska	79	..	..	..	..	..	..	..	..	..	21	3	21	12	1	..	2	..	1	4	..	10	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
Nevada	15	..	..	..	..	..	..	..	..	..	1	1	2	..	1	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	4
New Hampshire	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
New Jersey	84	..	..	..	1	..	1	..	..	..	2	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
New York	72	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Carolina	8	..	..	..	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
North Dakota	17	..	..	..	..	..	..	..	..	..	5	..	1	..	..	1	..	..	3	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Ohio	34	..	..	..	..	..	..	..	..	..	7	4	..	..	..	1	5	..	9	..	..	..	1	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Tennessee	26	..	..	..	..	..	..	..	8	..	3	..	..	..	12	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Texas	83	..	..	..	..	..	..	2	..	..	24	1	6	..	8	..	3	..	5	1	..	17	1	..	..	..	..	..	..	1	1	..	..	2	..	..	..	..	..	..	1	4	3	2
Utah	14	..	..	..	2	..	..	..	1	..	2	1	1	1	..	..	..	..	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..
Vermont	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Virginia	13	..	..	..	..	..	..	2	..	..	..	..	..	..	2	..	5	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Wisconsin	39	..	..	..	1	..	..	..	..	..	20	..	2	1	..	5	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..
Wyoming	14	..	..	..	..	..	..	..	..	..	2	1	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Total received from each state through reciprocity	1092	4	1	2	10	2	2	14	18	1	225	33	94	32	53	24	30	3	63	23	1	61	47	4	2	46	1	100	4	6	35	3	1	15	1	4	1	14	10	3	20	15	2[illegible]	13

This table shows the number of physicians registered by each state through reciprocity during 1908. "Reciprocity" is not the best term to use, however, since some states, Colorado for instance, register candidates who have satisfactory credentials including licenses, regardless as to whether the state issuing the original license reciprocates with those states or not. Taking New York as an example, reading from left to right, the table shows that New York registered a total of 72 applicants through reciprocity during 1908, of which number 13 came from Michigan, 40 from New Jersey, 9 from Ohio and 10 from Vermont. Reading from above downward, the table shows that 100 physicians left New York during 1908 and registered in other states under the reciprocity provision, of which number 10 registered in Colorado, 1 in Connecticut 1 in Louisiana, 5 in Michigan, 1 in Minnesota; 73 in New Jersey, 1 in North Carolina, 6 in Ohio and 2 in Vermont.

Colorado leads, having registered 150 physicians through reciprocity, followed by Kansas, which registered 104, New Jersey with 84, and Michigan with 83.

It is interesting to note in what states the original licenses were issued. The table shows that of 1092 applicants registered through reciprocity, 225, or over 20 per cent., obtained their original licenses in Illinois, 100 in New York, 94 in Iowa, and 63 in Michigan.

Altogether 1,092 licenses were issued through reciprocity in 1908, an increase of 103 over 1907, and 407 over 1906.

TABLE A.—PHYSICIANS EXAMINED BY STATE

Marginal Number	NAME OF COLLEGE.	1 Alabama		2 Arizona		3 Arkansas		4 California		5 Colorado		6 Connecticut		7 Delaware		8 District of Columbia		9 Florida		10 Georgia		11 Idaho		12 Illinois		13 Indiana		14 Iowa		15 Kansas		16 Kentucky		17 Louisiana		18 Maine		19 Maryland		20 Massachusetts		21 Michigan		Marginal Number
		I	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	
	ALABAMA.																																												
1	Birmingham Medical College.—R...	8	0															1	0																											1
2	Univ. of Alabama, Med. Dept.—R.	15	5															1	0															1	0											2
	ARKANSAS.																																													
3	Coll. of Phys. and Surgs.—R.....					1	0																																							3
4	Univ. of Arkansas, Med. Dept.—R.																																													4
	CALIFORNIA.																																													
5	California Eclectic Med. Coll.—R..							1	3																																					5
6	Coll. of P. and S., Los Angeles.—R			1	1			6	5																																					6
7	Coll. of P. and S., San Fran.—R.							8	16																																					7
8	Cooper Medical College.—R.....							27	5																																					8
9	Hahnemann M. Coll. of Pacific.—H							3	3																																					9
10	Oakland Coll. of M. and Surg.—R.							1	0																																					10
11	Univ. of Cal., Med. Dept.—R.....							15	3																																					11
12	Univ. of Southern California.—R..			4	0			23	15															1	0																					12
	COLORADO.																																													
13	Denver & Gross Coll. of Med.—R.	1	0			1	0	1	0	21	4											1	0																							13
14	Denver Coll. of P. and S.—P.....									3	2																																			14
15	Univ. of Colo., Medical Dept.—R.									10	0											2	0																							15
	CONNECTICUT.																																													
16	Yale Medical School.—R.....							1	0			21	0																											6	0					16
	DISTRICT OF COLUMBIA.																																													
17	Geo. Washington University.—R..															26	13					0	1	2	1	1	0											5	2	1	1			17
18	Georgetown Univ. School of M.—R.			1	0			1	0			1	1			7	1							1	0													4	0	2	1			18
19	Howard Univ., Med. Dept.—R.....	1	0					0	1			1	0			6	6			2	0			1	1													1	2	2	1			19
	GEORGIA.																																													
20	Atlanta Coll. of P. and S.—R.....	1	0															4	0	24	0													2	0											20
21	Atlanta School of Medicine.—R...	2	6					0	1									6	0	36	4													1	0											21
22	Georgia Coll. of Eclect. M. & S.—E																	0	1																											22
23	Medical College of Georgia.—R....					0	1											3	0	30	1													0	1											23
	ILLINOIS.																																													
24	American Med. Missionary Coll.—R															1	0	2	0					8	0			1	0											1	1	9	0			24
25	Bennett Coll. of Elect. M. & S.—E.			1	0																	0	1	21	4	1	0	1	0																	25
26	Chicago Coll. of M. and S.—R.....	1	0																					66	3	4	0	2	0											1	2					26
27	Coll. of Med. and Surg.—Ph.M....																							2	2																					27
28	Coll. of Phys. and S.—R.....					2	0	4	0	0	1	0	1					2	0			5	2	103	10	5	0	1	1											1	0	1	0			28
29	Hahnemann Med. Coll. & Hosp.—H	0	1	1	0	2	0			0	1											1	1	27	7	3	0	2	1											0	1	1	0			29
30	Hering Medical College.—H.....			1	0																			12	1	2	0			1	0															30
31	Illinois Medical College.—R.....							0	1									1	0					16	6	4	0	0	1			1	0							1	0					31
32	Jenner Medical College.—R.....																			1	0			25	11	0	1																			32
33	National Medical University.—P...					1	0															1	0	4	4															1	0					33
34	Northwestern Univ. M. School.—R.			2	0			3	1	4	0											3	0	111	1	3	0	2	0											1	0					34
35	Rush Medical College.—R.....			1	0	1	0	7	2									1	0			4	0	57	1	4	0	1	0	1	0									1	0					35
	INDIANA.																																													
36	Ind. Univ. School of Med.—R....																									74	0																			36
37	Physio-Med. Coll. of Ind.—Ph.M.					0	1																			4	0																			37
	IOWA.																																													
38	Drake Univ., Coll. of Med.—R...																											24	5																	38
39	Sioux City Coll. of Medicine.—R...			1	0																							9	1																	39
40	State Univ. of Iowa, C. of M.—R							0	3																			43	7																	40
41	State U. of Ia., Homeo. Dept.—H																							1	0			8	1																	41
	KANSAS.																																													
42	Kansas Medical College.—R.....							*	0													1	0	1	0					8	3															42
43	Univ. of Kan., School of Med.—R.							1	0																					14	0															43
44	Western Elect. Coll. of M. & S.—E																													10	1															44
	KENTUCKY.																																													
45	Louisville Nat. Med. Coll.—R.....					0	1																			1	0			1	0	0	3													45
46	Southwestern Homeo. M. Coll.—H									1	1																															0	1			46
47	Univ. of Louisville, Med. Dept.—R.	1	0			3	0	0	1			1	0					2	0	4	1			2	1	12	1	1	0			28	24													47
	LOUISIANA.																																													
48	Flint Medical College.—R																	1	0															8	5											48
49	Tulane Univ., Med. Dept.—R.....		0	1	0	4	0									0	3	3	0	2	0													83	2											49
	MAINE.																																													
50	Med. School of Maine.—R.....							1	0																											22	2			3	0					50
	MARYLAND.																																					13	9							
51	Atlantic Medical College.—P.....																																			8	0	19	16	14	16					51
52	Baltimore Medical College.—R.....							0	2			3	2			2	2	2	1	1	0															3	0	11	6	6	0					52
53	College of Phys. and Surg.—R.....			1	0	1	0	1	0			1	0					1	0	1	1			1	0													16	0	3	0	1	0			53
54	Johns Hopkins Med. School.—R..	1	0									4	1			2										1	0	2	0									4	11	1	3					54
55	Maryland Medical College.—R.....	1	0							1	0	1	2			0	2			2	1													1	0			1	0			32	15	3	0	1	0	55
56	Univ. of Md. School of Med.—R.									1	0	3	0	3	0			2	0	2	0											1	0							3	3					56
57	Woman's Medical College.—R.....															1	0																													57
	MASSACHUSETTS.																																													
58	Boston Univ. School of Med.—H.											2	0																							5	0			17	4					58
59	Coll. of Phys. and Surgs.—R.....											1	0																							9	5			10	10					59
60	Harvard Univ. Med. School.—R...							3	0			7	1			1	0					2	0	1	0			1	0							0	1			47	0					60
61	Tufts College Medical School.—R..							0	1			4	0			0	1																			16	1			56	7					61
	MICHIGAN																																									28	2			62
62	Detroit College of Medicine.—R....	1	0	1	0			1	0									1	0			0	1	1	0																	4	0			63
63	Detroit Homeo. College.—H.....																								2	0														1	0	54	0			64
64	U. of Mich., Dept. of M. & S.—R.			1	0			5	5									2	0	1	0	1	0			3	0	1	0			2	0					1	0			6	0			65
65	Univ. of Mich., Homeo. Dept.—H.																							1	1																					66
	MINNESOTA.																																													
66	Univ. of Minn., Coll. of M. & S.—R							0	1													2	0																							67
67	U. of M., Homeopathic Dept.—H.																					2	0																							68
68	Minneapolis Coll. of P. & S.—R...																																													69
	MISSISSIPPI.																																													
69	Mississippi Med. College.—R.....	0	3															0	1																											
		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		

R—Regular; H—Homeopathic; E—Eclectic; P—Panpathic; * One report not received.

Marginal Number	22 Minnesota P	22 Minnesota F	23 Mississippi P	23 Mississippi F	24 Missouri P	24 Missouri F	25 Montana P	25 Montana F	26 Nebraska P	26 Nebraska F	27 Nevada P	27 Nevada F	28 New Hampshire P	28 New Hampshire F	29 New Jersey P	29 New Jersey F	30 New Mexico P	30 New Mexico F	31 New York P	31 New York F	32 North Carolina P	32 North Carolina F	33 North Dakota P	33 North Dakota F	34 Ohio P	34 Ohio F	35 Oklahoma P	35 Oklahoma F	36 Oregon P	36 Oregon F	37 Pennsylvania P	37 Pennsylvania F	38 Rhode Island P	38 Rhode Island F	39 South Carolina P	39 South Carolina F	40 South Dakota P	40 South Dakota F	41 Tennessee P	41 Tennessee F	42 Texas P	42 Texas F	43 Utah P	43 Utah F	44 Vermont P	44 Vermont F	45 Virginia P	45 Virginia F	46 Washington P	46 Washington F	47 West Virginia P	47 West Virginia F	48 Wisconsin P	48 Wisconsin F	49 Wyoming P	49 Wyoming F	Totals:	Examined—Passed	Examined—Failed	Percentage of Failures	No. States Ex. in	Marginal Number
1																	1	0																					1	0																			14	14	0	0.	5	1
2			1	0													1	0																							1	0					1	0											23	18	5	21.8	6	2
3																																																									1	1	0	0.	1	3
4	0	1			0	1																					0	1													3	1																	7	3	4	57.1	4	4
5											1	0																	1	0																													6	3	3	50.0	3	5
6											1	0																																														14	8	6	42.8	[illegible]	6
7											6	0																															2	0					3	4									39	19	20	51.3	4	7
8											2	0																																													34	29	5	14.7	2	8
9									1	0																																															7	4	3	42.9	2	9
10																													1	0																													2	2	0	0.	2	10
11	1	0					1	0							0	1			1	0																													1	0							23	19	4	17.4	6	11
12																																																									43	28	15	35.0	3	12
13			0	1					1	0			1	0			1	0	1	0											1	0											1	0					3	0					1	0	40	35	5	12.5	14	13
14																																																									5	3	2	40.0	1	14
15							1	0																																			1	0					1	0							15	15	0	0.	5	15
16									1	0					2	0			14	0																									2	0											52	52	0	0.	10	16
17							1	1									1	0	2	0	2	0							0	2											2	0	3	0	0	1	5	1	2	0							76	53	23	30.3	16	17
18	0	1											1	0					2	0					1	0					3	0	1	0					1	0			2	0			1	0									33	29	4	12.1	16	18
19							2	0							3	0			1	0											7	2			2	1			1	0	1	0					2	0				1	0				48	34	14	29.2	17	19
20																					1	1					1	1							1	1					1	0							1	0							39	36	3	7.7	9	20
21																																			1	0			0	1																	58	46	12	20.7	7	21
22																																									1	0																	2	1	1	50.0	2	22
23															1	1	0	1																	3	5					1	0							1	0							49	39	10	20.4	9	23
24							2	0	1	0															1	0			0	1	1	0							1	0											0	2							32	28	4	12.5	13	24
25							0	1											0	1			1	1					0	1									3	0	1	0							0	1			1	0			40	30	10	25.0	13	25
26	1	1	1	0	1	0	2	0									1	0					1	0			1	1	1	0									1	0									1	1			1	0			94	86	8	8.5	16	26
27																																																									4	2	2	50.0	1	27
28					1	1	5	1	2	1									2	1			7	0	2	1	2	0	3	3	2	0					4	0									10	2	1	0	8	0	1	0	199	174	25	12.6	25	28
29	1	0			3	0											1	0	2	1							2	0	0	1							1	0									4	0			1	0			66	52	14	21.2	19	29
30																																																			1	0			18	17	1	5.6	5	30
31							0	1											0	1																													1	0			1	0			37	26	11	29.7	12	31
32							1	0																																																39	27	12	30.8	4	32
33																																																								17	9	8	47.1	8	33
34	2	0																																																			2	0			167	162	5	3.0	21	34
35	2	0																					3	0	2	0			2	0	1	0					7	1			1	0	2	6					8	2			7	0	0	1	130	121	9	6.9	24	35
36							1	0																																									1	0							76	76	0	0.	3	36
37																													0	1																											6	4	2	33.3	3	37
38									0	1																			1	0																					1	0							32	26	6	18.7	4	38
39							0	1																					1																						1	0							22	18	4	18.2	6	39
[illegible]																							2	0					0																						7	0							70	59	11	15.7	8	40
41																																																									10	9	1	10.0	2	41
42					1	0	0	1																			1	0	0	2											2	0															21	15	6	28.6	9	42
43					9	0											2	0																															1	0							27	27	0	0.	5	43
44																											1	0													2	0															14	13	1	7.2	3	44
45																																																									6	2	4	66.7	4	45
46																																																									2	1	1	50.0	1	46
47																																											0	2			0	1	0	1	11	2	1	0			128	87	41	32.0	28	47
48			1																																				1	0																	2	11	9	45.0	4	48
49			10																																				1	0																									135	126	9	6.7	13	49
50													5	1																	1	0							4	0	12	1							1	0				1	0				36	33	3	8.3	6	50
51																																													1	0																			
52																															1	0																									23	14	9	39.1	2	51
53																															14	3	1	3	2	1											4	5	2	1	5	0					171	112	59	34.5	21	52
54																			14	1			1	0	1	0	2	0	2	0	2	0															0	2	4	0	23	0			1	0	107	95	12	11.3	26	53
55																			5	0	1	0																					1	0			2	0	3	0	1	0					73	71	2	2.7	22	54
56																			0	1	4	3	1	1	2	0															4	0							0	1	6	1					60	30	30	50.0	19	55
57																					5	4	1	0	5	0															1	0			1	0	4	0	1	1	6	1					124	102	22	17.7	23	56
58																																																			1	0					9	6	3	33.3	4	57
59															0																																										33	29	4	12.1	6	58
60	1	0							0	1	1	0	1	0	1	1																													1	0	0	2	2	1			0	1			45	24	21	46.7	8	59
61							1	0							8	1																																	4	0			1	0			98	90	8	8.2	19	60
62																																																	2	0			2	0	1	0	115	100	15	13.0	16	61
63																																																								42	38	4	9.5	10	62
64	1																																																							6	6	0	0.	2	63
65																															1	0																					0	1			112	103	9	8.0	21	64
66	20	5					4	0															7	0																											0	1			13	11	2	15.4	6	65
67		1																																																10	2					1	0	68	60	8	11.8	11	66
68	2	9																																																						4	3	1	25.0	1	67
69			4	10																																														1	0							49	34	15	30.6	8	68
	22		23		24		25		26		27		28		29		30		31		32		33		34		35		36		37		38		39		40		41		42		43		44		45		46		47		48		49							

TABLE A.—PHYSICIANS EXAMINED BY STATE

Marginal Number	NAME OF COLLEGE.	1 Alabama P	1 Alabama F	2 Arizona P	2 Arizona F	3 Arkansas P	3 Arkansas F	4 California P	4 California F	5 Colorado P	5 Colorado F	6 Connecticut P	6 Connecticut F	7 Delaware P	7 Delaware F	8 District of Columbia P	8 District of Columbia F	9 Florida P	9 Florida F	10 Georgia P	10 Georgia F	11 Idaho P	11 Idaho F	12 Illinois P	12 Illinois F	13 Indiana P	13 Indiana F	14 Iowa P	14 Iowa I	15 Kansas P	15 Kansas F	16 Kentucky P	16 Kentucky F	17 Louisiana P	17 Louisiana F	18 Maine P	18 Maine F	19 Maryland P	19 Maryland F	20 Massachusetts P	20 Massachusetts F	21 Michigan P	21 Michigan F	Marginal Number
	MISSOURI.																																											
70	American Medical College.—E			1	0					1	0																																	70
71	Barnes Medical College.—R			2	0	5	1	0	1	1	0											2	4	33	11			1	1	3	0	1	1									1	0	71
72	Ensworth Medical College.—R					0	1																					0	1	15	5									0	1			72
73	Homeopathic Med. Coll. of Missouri.—H																							3	5	2	0			1	0													73
74	Kansas City Hahnemann Med. Coll.—H					1	0															1	1	43	1			1	0	6	0													74
75	St. Louis University, School of Med.—R					3	0															0	1	17	12	0	1		1	1	0													75
	St. Louis Coll. of Phys. and Surg.—R			1	0	1	0	0	1	1	1															1	0																	76
77	University of Missouri, Medical Dept.—R			1	0			1	0																																			77
78	University Medical Coll., Kansas City.—R					1	0	1	1	1	0																			37	1													78
79	Washington University, Med. Dept.—R					2	0	0	1									1	0					41	5																			79
	NEBRASKA.																																											
80	John A. Creighton Medical Coll.—R									0	1											6	0	1	0																			80
81	Lincoln Medical College.—E									1	0																			2	0													81
82	Nebraska College of Medicine.—R																																											82
83	University of Nebraska, Coll. of Med.—R																																											83
	NEW HAMPSHIRE.																																											
84	Dartmouth Medical School.—R											0	1					1	0					1	0	1	0							0	1	1	0			8	0	1	0	84
	NEW YORK.																																											
85	Albany Medical College.—R																					1	0																	1	0			85
86	College of Phys. and Surg., New York.—R							3	0			4	1					2	0	1	0											1	0			3	0			2	0	1	0	86
87	Cornell Univ. Medical College.—R											1	0							1	0																			1	0			87
88	Eclectic Med. Coll. of City of New York.—E																																											88
89	Long Island College Hospital.—R							1	0													0	1	1	0													0	1	2	0			89
90	New York Homeo. Med. Coll. and Hosp.—H							2	0																															2	0			90
91	N. Y. Med. Coll. and Hosp. for Women.—H																																											91
92	Syracuse University, Coll. of Med.—R											1	0							1	0																							92
93	Univ. and Bellevue Hosp. Med. Coll.—R											3	0											1	0	1	0													4	0			93
94	University of Buffalo, Med. Dept.—R																	1	0																									94
	NORTH CAROLINA.																																											
95	Leonard School of Medicine.—R	0	1													0	1			6	0													3	0			1	0					95
96	North Carolina Medical College.—R																			1	0																					1	1	96
97	Univ. of North Carolina, Med. Dept.—R																	1	0																									97
	OHIO.																																											
98	Cleveland Coll. of Phys. and Surg.—R									1	0											1	0																					98
99	Cleveland Homeo. Medical College.—H																																							1	0			99
100	Eclectic Medical Institute.—E							1	0	0	1													1	0	5	0					3	1									0	1	100
101	Medical College of Ohio.—R							0	1									1	0			0	1	1	0	2	0					3	0											101
102	Miami Medical College.—R							2	2									1	0							3	0					1	0											102
	Pulte Medical College.—H																							1	0							1	0											103
	Starling-Ohio Medical College.—R																																											105
	Toledo Medical College.—R							0	1																																			105
	Western Reserve Univ. Med. Dept.—R																									1	0													1	0			106
	OREGON.																																											
	Willamette Univ., Medical Dept.—R																																											107
108	University of Oregon, Medical Dept.—R																							1	0																			108
	PENNSYLVANIA.																																											
109	Hahnemann Med. Coll. and Hospital.—H											1	0	1	0													2	0							1	0	1	0					109
110	Jefferson Medical College.—R	1	0	3	0	1	0	6	2			2	1	2	0	0	3	1	0			1	0	5	0	2	0			2	0			1	0	3	0	6	2	7	2	2	0	110
111	Medico-Chirurgical Coll. of Philadelphia.—R							1	2									1	0			1	0	1	0	1	0							1	0	1	0			1	0			111
112	Temple College, Medical Dept.—R																																											112
113	University of Penn., Dept. of Medicine.—R			1	0			4	1					1	0	1	0					1	0	2	0			1	0	2	0							9	0	1	0			113
114	Western Pennsylvania Med. College.—R											0	1							1	0			2	0																			114
115	Woman's Med. Coll. of Pennsylvania.—R															1	0					1	0									1	0			2	0	5	0	4	0			115
	SOUTH CAROLINA.																																											
116	Med. Coll. of the State of So. Carolina.—R																	4	0	2	0																							117
	TENNESSEE.																																											
117	Chattanooga Medical College.—R	0	4			0	1											2	0	6	0													1	0									118
118	Coll. of Phys. and Surg., Memphis.—R																			2	0																							119
119	Knoxville Medical College.—R																																	16	6									120
120	Memphis Hospital Medical College.—R	4	3			5	1											1	1																									121
121	Meharry Medical College.—R	1	4			3	8											1	2	10	0			0	1			0	1	0	1	2	4	2	2									122
122	Tennessee Medical College.—R																	1	0																									123
123	University of Nashville, Med. Dept.—R	3	5			2	0											3	0	4	0									1	0	0	1	9	1									124
124	University of Tennessee, Dept. of Med.—R	2	3	0	1	1	0											2	0	2	0							1	0			1	1	1	0									125
125	University of the South, Med. Dept.—R	1	1			1	0							1	0			5	0	1	0													1	3	1	1	1	1					126
126	University of West Tenn., Med. Dept.—R					0	1													0	1																							127
127	Vanderbilt University, Med. Dept.—R	6	1			3	0															0	1									4	0					1	0					128
	TEXAS.																																											
128	Baylor University, Coll of Med.—R																																											129
129	Fort Worth University, Medical Dept.—R			0	1																																							130
130	Southwestern University Med. Coll.—R																																	1	0									131
131	University of Texas, Dept. of Med.—R					1	0	1	0																											3	0			8	4			132
	VERMONT.																																											
132	University of Vermont, College of Med.—R							0	1			1	0																															133
	VIRGINIA.																																	0	1									134
133	Medical College of Virginia.—R			1	0											1	0					1	0	1	0									1	0									135
134	University of Virginia, Dept. of Med.—R	1	0	1	0									2	0			1	0	1	0																	0	1					136
135	University College of Medicine.—R																																											137
	WISCONSIN.																							1	0																			135
136	Marquette University, Med. Dept.—R																																			13	0			6	7	1	0	139
137	Wisconsin College of Phys. and Surg.—R																																							2	7			140
	Canadian Colleges			1	0			2	0	1	0	1	1	1	0			1	0			2	0	1	0	1	0	3	0	1	0	1	1	1	0					1	6	2	2	141
138	Foreign			1	0	1	0	3	2	1	0	1	2			1	0					1	0	6	1	1	0	1	0	1	0	1	1	1	0			3	1					
139	Miscellaneous Medical Colleges			4	0	6	6	3	11	3	2	2	1			3	4	11	4	5	5	8	1	14	6	27	4	27	20	9	5	57	25	9	7	1	1	0	3	1	6	2	2	
140	Undergraduates	9	27			67	63																							0	1									5	32			
141	Totals by States	132		40		205		241		66		88		11		89		89		164		68		742		179		182		134		168		174		103		203		346		119		
	Totals—Examined—Passed	66		36		120		145		52		67		11		53		79		150		52		646		172		139		116		107		145		92		132		238		11[illegible]		
	Total—Examined—Failed	66		4		85		96		14		16		0		36		10		14		16		96		7		43		18		61		29		11		71		103		[illegible]		
	Percentage of Failures	50.0		10.0		41.5		39.8		21.2		19.3		0.		40.4		11.2		8.5		23.5		12.9		3.9		23.6		13.4		36.3		16.7		10.7		35.0		31.2		5.0		
		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		

* One report not received.

R, Regular; H, Homeopathic; E, Eclectic; P, Panpathic.

| Marginal Number | 22 Minnesota | | 23 Mississippi | | 24 Missouri | | 25 Montana | | 26 Nebraska | | 27 Nevada | | 28 New Hampshire | | 29 New Jersey | | 30 New Mexico | | 31 New York | | 32 North Carolina | | 33 North Dakota | | 34 Ohio | | 35 Oklahoma* | | 36 Oregon | | 37 Pennsylvania | | 38 Rhode Island | | 39 South Carolina | | 40 South Dakota | | 41 Tennessee | | 42 Texas | | 43 Utah | | 44 Vermont | | 45 Virginia | | 46 Washington | | 47 West Virginia | | 48 Wisconsin | | 49 Wyoming | | Totals | Examined—Passed | Examined—Failed | Percentage of Failures | No. States Ex. in | Margin Number |
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TABLE B.—GRADUATES OF 1908 EXAMINED

Marginal Number.	NAME OF COLLEGE.	1 Alabama P	1 Alabama F	2 Arizona P	2 Arizona F	3 Arkansas P	3 Arkansas F	4 California P	4 California F	5 Colorado P	5 Colorado F	6 Connecticut P	6 Connecticut F	7 Delaware P	7 Delaware F	8 District of Columbia P	8 District of Columbia F	9 Florida P	9 Florida F	10 Georgia P	10 Georgia F	11 Idaho P	11 Idaho F	12 Illinois P	12 Illinois F	13 Indiana P	13 Indiana F	14 Iowa P	14 Iowa F	15 Kansas P	15 Kansas F	16 Kentucky P	16 Kentucky F	17 Louisiana P	17 Louisiana F	18 Maine P	18 Maine F	19 Maryland P	19 Maryland F	20 Massachusetts P	20 Massachusetts F	21 Michigan P	21 Michigan F	Marginal Number.
	ALABAMA.																																											
1	Birmingham Medical College.—R.	9	0																																									1
2	University of Alabama, Medical Dept.—R.	13	4															1	0															1	0									2
	ARKANSAS.																																											
3	College of Phys. and Surg., Little Rock—R.					1	0																																					3
4	University of Arkansas, Medical Dept.—R.																																											4
	CALIFORNIA.																																											
5	California Eclectic Medical College.—R.																																											5
6	College of Phys. and Surg., Los Angeles.—R.							5	4																																			6
7	College of Phys. and Surg., San Fran.—R.							5	4																																			7
8	Cooper Medical College.—R.							23	2																																			8
9	Hahnemann Med. Coll. of the Pacific.—H.							3	3																																			9
10	Oakland College of Med. and Surg.—R.							1	0																																			10
11	University of California, Med. Dept.—R.							11	3																																			11
12	University of Southern Cal., Coll of Med.—R.			2	0			19	6															1	0																			12
	COLORADO.																																											
13	Denver and Gross College of Medicine.—R.							1	0	15	3																																	13
14	Denver College of Phys. and Surg.—P.									2	2																																	14
15	University of Colorado, Medical Dept.—R.									10	0											1	0																					15
	CONNECTICUT.																																											
16	Yale Medical School.—R.											15	0																											3	0			16
	DISTRICT OF COLUMBIA.																																											
17	George Washington Univ., Dept. of Med.—R.															15	6							0	1													4	0					17
18	Georgetown Univ., School of Medicine.—R.											1	1			5	0																					3	0					18
19	Howard University, Medical Dept.—R.	1	0									1	0			2	4							1	0													0	1					19
	GEORGIA.																																											
20	Atlanta Coll. of Phys. and Surg.—R.	1	0															1	0	24	0																							20
21	Atlanta School of Medicine.—R.	2	3					0	1									4	0	36	4													1	0									21
22	Georgia Coll. of Eclectic Med. and Surg.—E.																																											22
23	Medical College of Georgia.—R.																	1	0	30	1													0	1									23
	ILLINOIS.																																											
24	American Medical Missionary College.—R.																																									3	0	24
25	Bennett Coll. of Eclectic Med. and Surg.—E.																							21	4			1	0															25
26	Chicago College of Med. and Surg.—R.	1	0																					66	3	4	0	2	0											1	2			26
27	College of Medicine and Surg.—Ph. M.																							1	1																			27
28	College of Physicians and Surgeons.—R.																					2	0	95	9	2	0	1	0													1	0	28
29	Hahnemann Med. Coll. and Hospital.—H.					1	0			0	1													26	6	2	0	1	1															29
30	Hering Medical College.—H.			1	0																			11	1	1	0			1	0													30
31	Illinois Medical College.—R.							0	1															14	6	2	0					1	0											31
32	Jenner Medical College.—R.																			1	0			23	8																			32
33	National Medical University.—P.					1	0																																	1	0			33
34	Northwestern University Med. School.—R.							2	1	1	0											1	0	106	1	2	0	1	0															34
35	Rush Medical College.—R.							2	1															50	0	1	0																	35
	INDIANA.																																											
36	Indiana University, School of Medicine.—R.																									70	0																	36
37	Physio-Medical College of Ind.—Ph. M.																									4	0																	37
	IOWA.																																											
38	Drake University, College of Med.—R.																											23	5															38
39	Sioux City College of Medicine.—R.																											7	1															39
40	State University of Iowa, College of Med.—R.																											43	0															40
41	State Univ. of Iowa, Homeopathic Dept.—H.																							1	0			8	1															41
	KANSAS.																																											
42	Kansas Medical College.—R.																							1	0					8	0													42
43	University of Kansas, School of Med.—R.																													13	0													43
44	Western Eclectic Coll. of Med. and Surg.—E.																													7	1													44
	KENTUCKY.																																											
45	Louisville National Med. College.—R.																									1	0			1	0	0	3											45
46	Southwestern Homeopathic Med. Coll.—H.																																									0	1	46
47	University of Louisville, Med. Dept.—R.	1	0			2	0					1	0					1	0	1	1			2	0	0	1	1	0			26	22											47
	LOUISIANA.																																											
48	Flint Medical College.—R.																																	78	1									48
49	Tulane University, Medical Dept.—R.	2	0			2	0									0	2	2	0	1	0																							49
	MAINE.																																											
50	Med. School of Maine, Bowdoin Coll.—R.																																			22	2			1	0			50
	MARYLAND.																																											
51	Atlantic Medical College.—P.																																					13	9					51
52	Baltimore Medical College.—R.											2	1			1	0																			2	0	17	8	9	8			52
53	College of Phys. and Surg., Baltimore.—R.																																			2	0	8	2	4	0			53
54	Johns Hopkins Medical School.—R.																																					15	0			1	0	54
55	Maryland Medical College.—R.	1	0									3	1			1	0																					1	4	0	1			55
56	University of Maryland, School of Med.—R.	1	0									1	1			0	1			2	0																	25	8	2	0			56
57	Woman's Med. College of Baltimore.—R.									1	0									1	0																	3	3					57
	MASSACHUSETTS.																																											
58	Boston University, School of Medicine.—H.																																			5	0			11	2			58
59	College of Physicians and Surgeons.—R.											1	0																							5	5			7	1			59
60	Harvard University Medical School.—R.							1	0			3	0																											30	0			60
61	Tufts College, Medical School.—R.											2	0																							9	1			48	6			61
	MICHIGAN.																																									25	2	
62	Detroit College of Medicine.—R.																																									4	0	62
63	Detroit Homeopathic College.—H.																																									33	0	63
64	Univ. of Mich., Dept. of Med. and Surg.—R.																			1	0					3	0					2	0									5	0	64
65	University of Mich., Homeopathic Dept.—H.																																	1	0									65
	MINNESOTA.																																											
66	Univ. of Minn., Coll. of Med. and Surg.—R.																																											66
67	University of Minn., Homeopathic Dept.—H.																					2	0																					67
68	Minneapolis College of Phys. and Surg.—R.																																											68
	MISSISSIPPI.																																											
69	Mississippi Medical College.—R.	0	3															0	1																									69
		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		

R—Regular; H—Homeopathic; E—Eclectic; P—Panpathic; * One report not received.

Marginal Number	22 Minnesota P	22 Minnesota F	23 Mississippi P	23 Mississippi F	24 Missouri P	24 Missouri F	25 Montana P	25 Montana F	26 Nebraska P	26 Nebraska F	27 Nevada P	27 Nevada F	28 New Hampshire P	28 New Hampshire F	29 New Jersey P	29 New Jersey F	30 New Mexico P	30 New Mexico F	31 New York P	31 New York F	32 North Carolina P	32 North Carolina F	33 North Dakota P	33 North Dakota F	34 Ohio P	34 Ohio F	35 Oklahoma* P	35 Oklahoma* F	36 Oregon P	36 Oregon F	37 Pennsylvania P	37 Pennsylvania F	38 Rhode Island P	38 Rhode Island F	39 South Carolina P	39 South Carolina F	40 South Dakota P	40 South Dakota F	41 Tennessee P	41 Tennessee F	42 Texas P	42 Texas F	43 Utah P	43 Utah F	44 Vermont P	44 Vermont F	45 Virginia P	45 Virginia F	46 Washington P	46 Washington F	47 West Virginia P	47 West Virginia F	48 Wisconsin P	48 Wisconsin F	49 Wyoming P	49 Wyoming F	Totals	Examined—Passed	Examined—Failed	Percentage of Failures	No. States Ex. In	Marginal Number
1																	1	0																																									11	11	0	0.	3	1
2			1	0																																																						19	15	4	21.1	3	2
3																																																										1	1	0	0.	1	3
4					0	1																					0	1													1	0															3	1	2	66.7	3	4
5																																																															5
6											1	0																																													10	6	4	40.0	2	6
7											1	0																															0						1	0							12	8	4	33.3	4	7
8																																																									24	22	2	8.3	1	8
9									1	0																																															7	4	3	42.9	2	9
10																													1	0																											2	2	0	0.	2	10
11																																																									14	11	3	21.4	1	11
12																																																									28	22	6	21.4	3	12
13									1	0			1	0																																											21	18	3	14.3	4	13
14																																																									5	3	2	40.0	1	14
15																																																									11	11	0	0.	2	15
16															2	0			3	0																									2	0													25	25	0	0.	5	16
17																	1	0			1	0							0	1									1	0	1	0			2	1											34	25	9	26.5	9	17
18																			1	0					1	0					3	0	1	0																							16	15	1	6.3	7	18
19															2	0															6	0									1	0											1	0					20	15	5	25.0	9	19
20																						1	0												1	1																					29	28	1	3.4	5	20
21																																			1	0			0	1																	53	44	9	17.0	7	21
22																																																														22
23																																			2	4																					39	33	6	15.4	4	23
24																																																									3	3	0	0.	1	24
25																							1	0																																	27	23	4	14.8	3	25
26			1	0													1	0									1	1	1	0									1	0													1	0			86	80	6	7.0	11	26
27																																																									2	1	1	50.0	1	27
28								1	0														1	0	2	0	2	0	1	0																										126	115	11	8.7	12	28
29															1	0											1	0																													43	35	8	18.6	8	29
30																																																					1	0			16	15	1	6.3	5	30
31																											1	0																													25	18	7	28.0	5	31
32																																																									32	24	8	25.0	2	32
33																															1	0																									3	3	0	0.	3	33
34	2	0									2	0											2	0					0	1							1	0					1	0			0	1	2	0			1	0			128	124	4	3.1	15	34
35																									1	0																											2	0			57	56	1	1.8	5	35
36								1	0																																														71	71	0	0.	2	36
37																																																									4	4	0	0.	1	37
38																																																									28	23	5	17.9	1	38
39																																					4	0																					12	11	1	8.3	2	39
40																																																			1	0						50	44	6	12.0	2	40
41																																																									10	9	1	10.0	2	41
42							1	0																																	1	0															11	11	0	0.	4	42
43							8	0																																																	21	21	0	0.	2	43
44																																									1	0															9	8	1	11.1	2	44
45																																																									5	2	3	60.0	3	45
46																																																														46
47			2	1							2	0											1	0	1	0	0	1			5	0							1	0	2	0									11	1					88	60	28	31.8	19	47
48			1	3																																																				12	8	4	33.3	2	48
49			4	1																																			10	0															103	99	4	3.9	8	49
50														1	1																														1	0										28	25	3	10.7	4	50
51																															1	0																									23	14	9	39.1	2	51
52							1	0									3	0			8	0	1	1							11	1	1	0	1	0									2	0					3	0			81	62	19	23.4	14	52
53																	1	0			4	0	0	1							12	1											2	0							19	0					57	53	4	7.0	10	53
54																	1	0			3	0	1	0					1	0	3	0											1	0			1	0							33	32	1	3.0	12	54
55																	0	1					0	1																	1	0									3	1			19	9	10	52.6	10	55
56																	2	0			1	0	11	0																					3	0							1	1			31	55	9	14.1	11	56
57																															4	0			3	0															1	0					8	5	3	37.5	2	57
58																																																														58
59																																	1	0																							22	20	2	9.1	3	59
60											1	0									2	0											2	0																							24	13	11	45.8	3	60
61															4	0									1	0							0	1					1	0																	41	41	0	0.	8	61
62																																																									72	64	8	11.1	6	62
63																																																									27	25	2	7.5	1	63
64								1	1																																																4	4	0	0.	1	64
65																															2	0									1	0							3	0							73	72	1	1.4	10	65
66	24	3						1	0																						1	0																									9	9	0	0.	4	66
67	2	1																					1	0													1	0			1	0							1	0							32	29	3	9.4	6	67
68	17	0																					2	0					1	0							1	0																			3	2	1	33.3	1	68
69			3	7																																																					32	23	9	28.1	5	69
	22		23		24		25		26		27		28		29		30		31		32		33		34		35		36		37		38		39		40		41		42		43		44		45		46		47		48		49							
Totals	26	4	27	8	28	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1	29	1						
Examined—Passed	22	3	23	7	23	1	25	1	25	1	26	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1	28	1						
Examined—Failed	4	1	4	1	4	0	4	0	4	0	3	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0						
Percentage of Failures	15.4	20.0	14.8	12.5	14.3	0.	13.8	0.	13.8	0.	10.3	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.	3.4	0.						
No. States Ex. In	4	1	4	2	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1						

TABLE B.—GRADUATES OF 1908 EXAMINED

Marginal Number	NAME OF COLLEGE.	1 Alabama P	1 Alabama F	2 Arizona P	2 Arizona F	3 Arkansas P	3 Arkansas F	4 California P	4 California F	5 Colorado P	5 Colorado F	6 Connecticut P	6 Connecticut F	7 Delaware P	7 Delaware F	8 District of Columbia P	8 District of Columbia F	9 Florida P	9 Florida F	10 Georgia P	10 Georgia F	11 Idaho P	11 Idaho F	12 Illinois P	12 Illinois F	13 Indiana P	13 Indiana F	14 Iowa P	14 Iowa F	15 Kansas P	15 Kansas F	16 Kentucky P	16 Kentucky F	17 Louisiana P	17 Louisiana F	18 Maine P	18 Maine F	19 Maryland P	19 Maryland F	20 Massachusetts P	20 Massachusetts F	21 Michigan P	21 Michigan F	Marginal Number
	MISSOURI.																																											
70	American Medical College.—E																																											70
71	Barnes Medical College.—R			1	0	2	0															2	1	32	9			0	1	1	0													71
72	Ensworth Medical College.—R																											0	1	14	0													72
73	Homeopathic Med. College of Missouri.—H																							3	4	2	0																	73
74	Kansas City Hahnemann Med. College.—H					1	0																					1	0	6	0													74
75	St. Louis University, School of Med.—R					2	0															1	1	42	1			1	1	1	0													75
76	St. Louis College of Phys. and Surg.—R							0	1															15	11																			76
77	University of Missouri, Medical Dept.—R			1	0																																							77
78	University Medical College, Kansas City.—R							1	1																					32	0													78
79	Washington University, Med. Dept.—R																							40	4																			79
	NEBRASKA.																																											
80	John A. Creighton Medical College.—R																							1	0			2	0															80
81	Lincoln Medical College.—E																													2	0													81
82	Nebraska College of Medicine.—R																																											82
83	University of Nebraska, College of Med.—R																																											83
	NEW HAMPSHIRE.																																											
84	Dartmouth Medical School.—R																																							5	0	1	0	84
	NEW YORK.																																											
85	Albany Medical College.—R																																											85
86	College of Phys. and Surg., New York.—R							1	0																											3	0							86
87	Cornell University Medical College.—R																																											87
88	Eclectic Med. Coll. of City of New York.—E																																											88
89	Long Island College Hospital.—R																																											89
90	New York Homeo. Med. Coll. and Hosp.—H							1	0																																			90
91	N. Y. Med. Coll. and Hosp. for Women.—H																																											91
92	Syracuse University, Coll. of Med.—R											1	0							1	0																							92
93	Univ. and Bellevue Hosp. Med. Coll.—R											2	0													1	0																	93
94	University of Buffalo, Med. Dept.—R																																											94
	NORTH CAROLINA.																																											
95	Leonard School of Medicine.—E															0	1			5	0													3	0			1	0					95
96	North Carolina Medical College.—R																			1	0																							96
97	Univ. of North Carolina, Med. Dept.—R																	1	0	1	0																							97
	OHIO.																																											
98	Cleveland College of Phys. and Surg.—R																																											98
99	Cleveland Homeo. Medical College.—H																																											99
100	Eclectic Medical Institute.—E									0	1													1	0	5	0					3	1											100
101	Medical College of Ohio.—R																									1	0					2	0											101
102	Miami Medical College.—R																															1	0											102
103	Pulte Medical College.—H																																											103
104	Starling-Ohio Medical College.—R																																											104
105	Toledo Medical College.—R																																											105
106	Western Reserve Univ. Med. Dept.—R																									1	0																	106
	OREGON.																																											
107	Willamette Univ., Medical Dept.—R			1	0																																							107
108	University of Oregon, Medical Dept.—R																																											108
	PENNSYLVANIA.																																											
109	Hahnemann Med. Coll. and Hospital.—H																											2	0															109
110	Jefferson Medical College.—R	1	0			1	0	3	0			2	1			0	2							4	0					1	0			1	0	2	0	4	1	3	0			110
111	Medico-Chirurgical Coll. of Philadelphia.—R																																	1	0	1	0			1	0			111
112	Temple College, Med. Dept.—R																																											112
113	University of Penn., Dept. of Medicine.—R													1	0							1	0															7	0					113
114	Western Pennsylvania Med College.—R																							1	0																			114
115	Woman's Med. Coll. of Pennsylvania.—R															1	0																			1	0	5	0	1	0			115
	SOUTH CAROLINA.																																											
116	Med. Coll. of the State of So. Carolina.—R																	1	0	1	0																							116
	TENNESSEE.																																											
117	Chattanooga Medical College.—R	0	4			0	1											1	0																									117
118	College of Phys. and Surg., Memphis.—R																			1	0																							118
119	Knoxville Medical College.—R																																	15	4									119
120	Memphis Hospital Medical College.—R	3	3			3	1											1	2	9	0											1	4	1	0									120
121	Meharry Medical College.—R	1	4			2	4											2	0	4	0																							121
122	Tennessee Medical College.—R																															0	1	7	1									122
123	University of Nashville, Med. Dept.—R	3	5			1	0													2	0											0	1	1	0									123
124	University of Tennessee, Dept. of Med.—R					1	0											1	0																			1	1					124
125	University of the South, Med. Dept.—R	0	1																	0	1																							125
126	University of West Tenn., Med. Dept.—R																															3	0											126
127	Vanderbilt University, Med. Dept.—R	5	1			3	0																																					127
	TEXAS.																																											
128	Baylor University, College of Med.—R																																											128
129	Fort Worth University, Med. Dept.—R																																											129
130	Southwestern University Med. Coll.—R																																											130
131	University of Texas, Dept. of Med.—R					1	0																																					131
	VERMONT.																																											
132	University of Vermont, Coll. of Med.—R																																			3	0			3	0			132
	VIRGINIA.																																											
133	Medical College of Virginia.—R																																											133
134	University of Virginia, Dept. of Med.—R																																											134
135	University Coll. of Medicine.—R												2	0						1	0																							135
	WISCONSIN.																																											
136	Marquette University, Med. Dept.—R																							1	0																			136
137	Wisconsin College of Phys. and Surg.—R																																			7	0			0	1			137
138	Canadian Colleges			1	0					1	0			1	0																													138
139	Foreign	1	1			1	6	0	1			1	0					1	3	3	4	1	0	2	0	16	2	24	16	3	0	49	24	2	4									139
140	Miscellaneous Medical Colleges																																											140
	Totals by States	49		7		37		107		38		41		4		41		24		136		13		630		121		157		91		144		131		70		144		159		96		
	Totals—Examined—Passed	48		7		25		78		31		30		4		25		18		124		11		561		118		113		90		88		119		62		107		133		93		
	Totals—Examined—Failed	31		0		12		29		7		5		0		16		6		11		2		69		5		3		1		56		12		8		37		20		3		
	Percentage of Failures	39.2		0.		32.4		27.1		18.4		12.2		0.		39.1		25.0		8.1		7.7		10.5		2.5		21.9		1.1		38.9		9.2		11.4		25.7		16.4		3.1		
		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		

Marginal Number	22 Minnesota P	22 Minnesota F	23 Mississippi P	23 Mississippi F	24 Missouri P	24 Missouri F	25 Montana P	25 Montana F	26 Nebraska P	26 Nebraska F	27 Nevada P	27 Nevada F	28 New Hampshire P	28 New Hampshire F	29 New Jersey P	29 New Jersey F	30 New Mexico P	30 New Mexico F	31 New York P	31 New York F	32 North Carolina P	32 North Carolina F	33 North Dakota P	33 North Dakota F	34 Ohio P	34 Ohio F	35 Oklahoma P	35 Oklahoma F	36 Oregon P	36 Oregon F	37 Pennsylvania P	37 Pennsylvania F	38 Rhode Island P	38 Rhode Island F	39 South Carolina P	39 South Carolina F	40 South Dakota P	40 South Dakota F	41 Tennessee P	41 Tennessee F	42 Texas P	42 Texas F	43 Utah P	43 Utah F	44 Vermont P	44 Vermont F	45 Virginia P	45 Virginia F	46 Washington P	46 Washington F	47 West Virginia P	47 West Virginia F	48 Wisconsin P	48 Wisconsin F	49 Wyoming P	49 Wyoming F	Totals	Examined—Passed	Examined—Failed	Percentage of Failures	No. States Ex. in	Marginal Number
70					5	1				

TABLE C.— GRADUATES OF 1903 TO 1908 INCLUSIVE

Marginal Number	NAME OF COLLEGE.	1 Alabama P	1 Alabama I	2 Arizona P	2 Arizona I	3 Arkansas P	3 Arkansas I	4 California P	4 California I	5 Colorado P	5 Colorado I	6 Connecticut P	6 Connecticut I	7 Delaware P	7 Delaware I	8 District of Columbia P	8 District of Columbia I	9 Florida P	9 Florida I	10 Georgia P	10 Georgia I	11 Idaho P	11 Idaho I	12 Illinois P	12 Illinois I	13 Indiana P	13 Indiana I	14 Iowa P	14 Iowa I	15 Kansas P	15 Kansas I	16 Kentucky P	16 Kentucky I	17 Louisiana P	17 Louisiana I	18 Maine P	18 Maine I	19 Maryland P	19 Maryland I	20 Massachusetts P	20 Massachusetts I	21 Michigan P	21 Michigan I	Marginal Number
	ALABAMA.																																											
1	Birmingham Medical College.—R	10	0															1	0																									1
2	University of Alabama, Medical Dept.—R	13	4															1	0															1	0									2
	ARKANSAS.																																											
3	College of Phys. and Surg., Little Rock—R					1	0																																					3
4	University of Arkansas, Medical Dept.—R																																											4
	CALIFORNIA.																																											
5	California Eclectic Medical College.—R							0	3																																			5
6	College of Phys. and Surg., Los Angeles.—R			1	1			6	5																																			6
7	College of Phys. and Surg., San Fran.—R							7	14																																			7
8	Cooper Medical College.—R							27	5																																			8
9	Hahnemann Med. Coll. of the Pacific.—H							3	3																																			9
10	Oakland College of Med. and Surg.—R							1	0																																			10
11	University of California, Med. Dept.—R							15	3																																			11
12	University of Southern Cal., Coll of Med.—R			4	0			22	14															1	0																			12
	COLORADO.																																											
13	Denver and Gross College of Medicine.—R	1	0			1	0	1	0	21	4											1	0																					13
14	Denver Coll. of Phys. and Surg.—P									3	2																																	14
15	University of Colorado, Medical Dept.—R									10	0											1	0																					15
	CONNECTICUT.																																											
16	Yale Medical School.—R							1	0			21	0																											5	0			16
	DISTRICT OF COLUMBIA.																																											
17	George Washington Univ., Dept. of Med.—R															2	13					0	1	2	1	1	0											5	2	1	1			17
18	Georgetown Univ., School of Medicine.—R			1	0							1	1			7	1																					4	0	2	1			18
19	Howard University, Medical Dept.—R	1	0									1	0			6	6			2	0			1	0													1	2	2	1			19
	GEORGIA.																																											
20	Atlanta Coll. of Phys. and Surg.—R	1	0															4	0	24	0													1	0									20
21	Atlanta School of Medicine.—R	2	5					0	1									6	0	36	4													1	0									21
22	Georgia Coll. of Eclectic Med. and Surg.—E																																											22
23	Medical College of Georgia.—R					0	1											2	0	30	1													0	1									23
	ILLINOIS.																																											
24	merican Medical Missionary College.—R															1	0							7	0															1	1	8	0	24
25	nnett Coll. of Eclectic Med. and Surg.—E			1	0																			21	4	1	0	1	0															25
26	icago College of Med. and Surg.—R	1	0																					66	3	4	0	2	0											1	2			26
27	ollege of Medicine and Surg.—Ph. M																							2	2																			27
28	College of Physicians and Surgeons.—R					1	0	3	0	0	1							1	0			5	0	101	10	5	0	1	1											1	0	1	0	28
29	Hahnemann Med. Coll. and Hospital.—H	0	1			1	0			0	1											1	1	27	6	3	0	2	1															29
30	Hering Medical College.—H			1	0																			12	1	2	0				1	0												30
31	Illinois Medical College.—R							0	1															16	6	4	0	0	1			1	0							1	0			31
32	Jenner Medical College.—R																			1	0			25	11	0	1																	32
33	National Medical University.—P					1	0															1	0	4	4															1	0			33
34	Northwestern University Med. School.—R			2	0			3	1	4	0											1	0	110	1	3	0	2	0															34
35	Rush Medical College.—R							4	1													1	0	57	0	2	0	1	0	1	0													35
	INDIANA.																																											
36	Indiana University, School of Medicine.—R																									74	0																	36
37	Physio-Medical College of Ind.—Ph. M																									4	0																	37
	IOWA.																																											
38	Drake University, College of Med.—R																											24	5															38
39	Sioux City College of Medicine.—R																											9	1															39
40	State University of Iowa, College of Med.—R							0	1																			43	7															40
41	State Univ. of Iowa, Homeopathic Dept.—H																							1	0			8	1															41
	KANSAS.																																											
42	Kansas Medical College.—R																							1	0					8	3													42
43	University of Kansas, School of Med.—R																													14	0													43
44	Western Eclectic Coll. of Med. and Surg.—E																													10	1													44
	KENTUCKY.																																											
45	Louisville National Med. College.—R					0	1																			1	0					0	3											45
46	Southwestern Homeopathic Med. Coll.—H									1	1																																	46
47	University of Louisville, Med. Dept.—R	1	0			3	0					1	0					2	0	4	1			2	0	11	1	1	0			28	23									0	1	47
	LOUISIANA.																																											
48	Flint Medical College.—R																																	8	3									48
49	Tulane University, Medical Dept.—R		0	1	0	3	0									0	3	3	0	2	0													80	1									49
	MAINE.																																											
50	Med. School of Maine, Bowdoin Coll.—R																																			22	2			3	0			50
	MARYLAND.																																											
51	Atlantic Medical Colleg.—P							0	2			3	2			2	2	0	1	1	0															8	0	13	9					51
52	Baltimore Medical College.—R											1	0					1	0																	3	0	19	16	14	15			52
53	College of Phys. and Surg., Baltimore.—R					1	0					4	1			2	0	2	0							1	0	2	0									11	6	5	0			53
54	Johns Hopkins Medical School.—R		0							1	0	1	2			0	2			2	1													1	0			16	0	3	0	1	0	54
55	Maryland Medical College.—R		0							1	0	1	0	2	0			2	0	2	0													1	0			4	11	1	3			55
56	University of Maryland, School of Med.—R															1	0															1	0	1	0			32	15	2	0	1	0	56
57	Woman's Med. College of Baltimore.—R																																					3	3					57
	MASSACHUSETTS.																																											
58	Boston University, School of Medicine.—H											1	0																							5	0			17	4			58
59	College of Physicians and Surgeons.—R											1	0																							9	5			10	10			59
60	Harvard University Medical School.—R							3	0			7	1															1	0							0	1			46	0			60
61	Tufts College, Medical School.—R							0	1			4	0																							16	1			55	7			61
	MICHIGAN.																																									27	0	62
62	Detroit College of Medicine.—R			1	0																	0	1																			4	0	63
63	Detroit Homeopathic Medical College.—H																									2	0													1	0	53	0	64
64	Univ. of Mich., Dept. of Med. and Surg.—R																	1	0	1	0					3	0	1	0			2	0									5	0	65
65	University of Mich., Homeopathic Dept.—H																																	1	0									66
	MINNESOTA.																																											
66	Univ. of Minn., Coll. of Med. and Surg.—R							0	1													2	0																					67
67	University of Minn., Homeopathic Dept.—H																					2	0																					68
68	Minneapolis Coll. of Phys. and Surg.—R																																											69
	MISSISSIPPI.																																											
69	Mississippi Medical College.—R	0	3															0	1																									
		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		

R—Regular; H—Homeopathic; E—Eclectic; P—Panpathic. * One report not received.

Marginal Number	22 Minnesota P	22 Minnesota F	23 Mississippi P	23 Mississippi F	24 Missouri P	24 Missouri F	25 Montana P	25 Montana F	26 Nebraska P	26 Nebraska F	27 Nevada P	27 Nevada F	28 New Hampshire P	28 New Hampshire F	29 New Jersey P	29 New Jersey F	30 New Mexico P	30 New Mexico F	31 New York P	31 New York F	32 North Carolina P	32 North Carolina F	33 North Dakota P	33 North Dakota F	34 Ohio P	34 Ohio F	35 Oklahoma* P	35 Oklahoma* F	36 Oregon P	36 Oregon F	37 Pennsylvania P	37 Pennsylvania F	38 Rhode Island P	38 Rhode Island F	39 South Carolina P	39 South Carolina F	40 South Dakota P	40 South Dakota F	41 Tennessee P	41 Tennessee F	42 Texas P	42 Texas F	43 Utah P	43 Utah F	44 Vermont P	44 Vermont F	45 Virginia P	45 Virginia F	46 Washington P	46 Washington F	47 West Virginia P	47 West Virginia F	48 Wisconsin P	48 Wisconsin F	49 Wyoming P	49 Wyoming F	Totals	Examined—Passed	Examined—Failed	Percentage of Failures	No. States Ex. in	Marginal Number
1																	1	0																					1	0																					14	14	0	0.	5	1
2			1	0													1	0																																											20	16	4	20.0	4	2
3																																																														1	1	0	0.	1	3
4	0	1			0	1																					0	1													1	0																			4	1	3	75.0	4	4
5											1	0																	1	0																															5	2	3	66.7	3	5
6											1	0																																																	14	8	6	42.8	3	6
7											5	0																															2	0							2	4									34	16	18	52.9	4	7
8											1	0																																																	33	28	5	15.2	2	8
9									1	0																																																			7	4	3	42.9	2	9
10																													1	0																															2	2	0	0.	2	10
11	1	0					1	0							0	1			1	0																																									22	18	4	18.2	5	11
12																																																														41	27	14	34.2	3	12
13			0	1					1	0			1	0			1	0	1	0											1	0											1	0					3	0					1	0	40	35	5	12.5	14	13
14																																																													5	3	2	40.0	1	14
15							1	0																																			1	0																	13	13	0	0.	4	15
16									1	0					2	0			12	0													3	0			1	0	1	0					2	0													49	49	0	0.	10	16
17							1	1									1	0	2	0	2	0							0	1											2	0	3	0	0	1	5	1	2	0									76	53	23	30.3	16	17
18	0	1											1	0					2	0					1	0																	2	0			1	0													30	26	4	13.3	13	18
19					2	0									3	0			1	0																											2	0					1	0					46	34	12	26.1	16	19
20																					1	0													1	1													1	0									34	33	1	2.9	7	20
21																																			1	0			0	1																			57	46	11	19.3	7	21
22																																									1	0																			1	1	0	0.	1	22
23							5	1									0	1																	3	5					1	0																	45	36	9	20.0	7	23
24							2	0	1	0									2	0			7	0	2	1	2	0	0	1	1	0					1	0											0	1									25	22	3	12.0	11	24
25																													0	1							3	0	1	0																			35	29	6	17.1	8	25
26	1	1	1	0	1	0	2	0															1	0					1	0																													94	86	8	8.5	16	26
27																	1	0					1																																					4	2	2	50.0	1	27
28							5	1																																																					179	161	18	10.1	21	28
29					3	0									1	0			1	1							1	0	0	1							1	0											4	0									57	45	12	21.1	14	29
30																																																					1	0					18	17	1	5.6	5	30
31																											1	0																					1	0					1	0			33	25	8	24.2	9	31
32																																																												38	26	12	31.6	3	32
33																							1	0															0	1																			16	9	7	43.8	7	33
34	2	0			1	0	2	0	3	0							1	0					3														6	0					2	0			0	1	8	0			1	0			161	156	5	3.1	20	34
35	2	0			3	0	2	0	1	0													2														3	0					1	0					4	0			3	0			91	90	1	1.1	17	35
36							1	0																																									1	0									76	76	0	0.	3	36
37																													0	1																													5	4	1	20.0	2	37
38									0	1																			1	0																					1	0							32	26	6	18.7	4	38
39							0	1																													6	2													1	0							20	16	4	20.0	4	39
40																							2	0					0	1							5	0											6	0							65	56	9	13.8	6	40
41																																																												10	9	1	10.0	2	41
42					1	0	0	1																					0	1											2	0																	17	12	5	29.4	6	42
43					9	0											2	0																																	1	0							26	26	0	0.	4	43
44																											1	0													2	0																	14	13	1	7.2	3	44
45																																																													6	2	4	66.7	4	45
46																																																													2	1	1	50.0	1	46
47			2	1	1	0			2	0					0	1							1	0	1	0	1	1	0	1	7	0			1	0			1	0	2	0	0	2					0	1	11	2	1	0			119	84	35	29.4	26	47
48			1	4																																			1	0																	17	10	7	41.2	3	48
49			9	2															2	0																			2	0	10	1																	122	115	7	5.7	11	49
50													5	1																															1	0													34	31	3	8.8	4	50
51																																																													23	14	9	39.1	2	51
52	1	1			2	0							1																		1	0																													161	105	56	34.8	21	52
53								1	0																						13	2	1	3	2	1											4	4	1	1	5	0							93	85	8	8.6	19	53
54	1	1			1	0																									14	1			1	0			1	0	1	0	2	0					4	0	23	0					1	0	72	70	2	2.8	22	54
55													0	1	0	1													1	0	5	0	1	0									1	0			2	0	2	0	1	0							58	29	29	50.0	18	55
56															2	0			3	0	2	1							0	1	4	3	1	1	2	0					3	0					0	1	6	1							111	89	22	19.8	21	56
57																						1	0								4	4			5	0									1	0	4	0	1	1	6	1							9	6	3	33.3	4	57
58													2	0					1	0																																									31	27	4	12.9	6	58
59																			1	0													1	0																											43	24	19	44.2	8	59
60	1	0						0	1	1	0		1	1					7	3					2	0							4	1					1	0									2	0			1	0			85	77	8	9.4	15	60
61					1	0							8	1					3	1					1	0					0	1	3	2			1	0	2	0																	110	96	14	12.7	13	61
62																																																																				
63																															1	1																	2	0							35	31	4	11.4	5	62
64	1	0						4	2										3	0					5	0			1	0	3	0									2	0															6	6	0	0.	2	63
65																									2	0					1	0																	9	0							94	92	2	2.1	16	64
66	30	5						4	0														6	0																																			9	9	0	0.	4	65
67	3	1																																																											64	56	8	12.5	10	66
68	31																																																												4	3	1	25.0	1	67
69																																																													46	32	14	30.4	7	68
	22		23		24		25		26		27		28		29		30		31		32		33		34		35		36		37		38		39		40		41		42		43		44		45		46		47		48		49									

TABLE D.— GRADUATES OF 1902 AND PREVIOUS

Marginal Number	NAME OF COLLEGE.	1 Alabama P	1 Alabama F	2 Arizona P	2 Arizona F	3 Arkansas P	3 Arkansas F	4 California P	4 California F	5 Colorado P	5 Colorado F	6 Connecticut P	6 Connecticut F	7 Delaware P	7 Delaware F	8 District of Columbia P	8 District of Columbia F	9 Florida P	9 Florida F	10 Georgia P	10 Georgia F	11 Idaho P	11 Idaho F	12 Illinois P	12 Illinois F	13 Indiana P	13 Indiana F	14 Iowa P	14 Iowa F	15 Kansas P	15 Kansas F	16 Kentucky P	16 Kentucky F	17 Louisiana P	17 Louisiana F	18 Maine P	18 Maine F	19 Maryland P	19 Maryland F	20 Massachusetts P	20 Massachusetts F	21 Michigan P	21 Michigan F	Marginal Number
	MISSOURI.																																											
70	American Medical College.—E			1	0																																							70
71	Barnes Medical College.—R					1	0			1	0											0	1							1	0									0	1			71
72	Ensworth Medical College.—R																																											72
73	Homeopathic Med. Coll. of Missouri.—H																							0	1					1	0													73
74	Kansas City Hahnemann Med. Coll.—H																																											74
75	St. Louis University, School of Med.—R																																											75
76	St. Louis Coll. of Phys. and Surg.—R			1	0	1	0			0	1													0	1																			76
77	University of Missouri, Medical Dept.—R							1	0																																			77
78	University Medical Coll., Kansas City.—R					1	0																							1	0													78
79	Washington University, Medical Dept.—R					1	0																																					79
	NEBRASKA.																																											
80	John A. Creighton Med. Coll.—R																																											80
81	Lincoln Medical College.—E									1	0																																	81
82	Nebraska College of Medicine.—R																																											82
83	University of Nebraska, Coll. of Med.—R																																											83
	NEW HAMPSHIRE.																																											
84	Dartmouth Medical School.—R											0	1					1	0					1	0		0							0	1					1	0			84
	NEW YORK.																																											
85	Albany Medical College.—R																																											85
86	College of Phys. and Surg., New York.—R							2	0			2	1					1	0																							1	0	86
87	Cornell Univ. Medical College.—R																																											87
88	Eclectic Med. Coll. of City of New York.—E																																											88
89	Long Island College Hospital.—R																					0	1																	1	0			89
90	New York Homeo. Med. Coll. and Hosp.—H							1	0																																			90
91	N. Y. Med. Coll. and Hosp. for Women.—H																																											91
92	Syracuse University, Coll. of Med.—R																							1	0															1	0			92
93	Univ. and Bellevue Hosp. Med. Coll.—R																	1	0																									93
94	University of Buffalo, Medical Dept.—R																																											94
	NORTH CAROLINA.																																											95
95	Leonard School of Medicine.—E																																											96
96	North Carolina Med. Coll.—R																																											97
97	Univ. of North Carolina, Med. Dept.—R																																											
	OHIO.																																											98
	Cleveland Coll. of Phys. and Surgs.—R									1	0																													1	0			99
	Cleveland Homeo. Med. Coll.—H																																											100
	Eclectic Medical Institute.—E							1	0									1	0			0	1	1	0																			101
	Medical College of Ohio.—R							0	1									1	0							1	0																	102
102	Miami Medical College.—R																							1	0																			103
103	Pulte Medical College.—H			1	1																																							104
104	Starling—Ohio Medical College.—R																																											105
105	Toledo Medical College.—R							0	1																																			106
106	Western Reserve Univ., Med. Dept.—R																																											
	OREGON.																																											107
107	Willamette Univ., Medical Dept.—R																																											108
108	University of Oregon, Medical Dept.—R																																											
	PENNSYLVANIA.																																					1	0					109
109	Hahnemann Med. Coll. and Hospital.—H			1	0			1	2					1	0	0	1							1	0	1	0													2	1	2	0	110
110	Jefferson Medical College.—R																																											111
111	Medico-Chirurgical Coll. of Philadelphia.—R																																											112
112	Temple College, Med. Dept.—R																																					1	0	1	0			113
113	University of Penn., Dept. of Medicine.—R			1	0			3	0											1	0			1	0																			114
114	Western Pennsylvania Med. Coll.—R																					1	0																	1	0			115
115	Woman's Med. Coll. of Pennsylvania.—R																																											116
	SOUTH CAROLINA.																			1	0																							117
116	Med. Coll. of the State of So. Carolina.—R																																											118
	TENNESSEE.																			3	0													1	0									119
117	Chattanooga Medical College.—R																																											120
118	Coll. of Phys. and Surg., Memphis.—R																	1	0															0	2									121
119	Knoxville Medical College.—R	1	0																									0	1	0	1													122
120	Memphis Hospital Medical College.—R																																											123
121	Meharry Medical College.—R																																											124
122	Tennessee Medical College.—R																											1	0															125
123	University of Nashville, Med. Dept.—R																																											126
124	University of Tennessee, Dept. of Med.—R													1	0																													127
125	University of the South, Med. Dept.—R																					0	1									1	0											128
126	University of West Tenn., Med. Dept.—R																																											129
127	Vanderbilt University, Med. Dept.—R																																											130
	TEXAS.																																											131
128	Baylor University, Coll. of Med.—R			0	1																																							
129	Fort Worth University, Med. Dept.—R																																											
130	Southwestern Univ. Med. Dept.—R							1	0																															1	2			132
131	University of Texas, Dept. of Med.—R											1	0																															133
	VERMONT.																																											134
132	University of Vermont, Coll. of Med.—R																																											135
	VIRGINIA.																																											
133	Medical Coll. of Virginia.—R																																											136
134	University of Virginia, Dept. of Med.—R																																											137
135	University Coll. of Medicine.—R																																											
	WISCONSIN.																																											138
136	Marquette University, Med. Dept.—R																													1	0					2	0			2	1			139
137	Wisconsin Coll. of Phys. and Surg.—R																																							2	6			140
				1	0			1	2			0	1			1	0	1	0					0	1	1	0	1	0	1	1	0	1	1	0					1	2	1	1	
138	Canadian Colleges	1	0	3	0	1	0	2	8	1	2	1	1			4	4	7	1	1	0	5	1	8	5	2	0	0	2	5	2			1	2	0	1			1	2			
139	Foreign							1	0			0	1																															
140	Miscellaneous Medical Colleges																																											
	Totals by States	5		16		10		57		7		13		3		10		28		8		24		37		9		0		14		3		15		3		2		37		10		
	Totals—Examined—Passed	3		14		9		30		4		7		3		4		26		7		16		24		8		3		10		1		7		2		2		22		9		
	Totals—Examined—Failed	2		2		1		27		3		6		0		0		2		1		8		13		0		3		4		2		8		1		0		15		1		
	Percentage of Failures	40.0		12.5		10.0		47.4		42.9		46.2		0.		30.0		7.1		12.5		33.3		35.1		0.		50.0		28.6		66.7		53.3		33.3		0.		40.5		10.0		
		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		

| Marginal Number | 22 Minnesota | | 23 Mississippi | | 24 Missouri | | 25 Montana | | 26 Nebraska | | 27 Nevada | | 28 New Hampshire | | 29 New Jersey | | 30 New Mexico | | 31 New York | | 32 North Carolina | | 33 North Dakota | | 34 Ohio | | 35 Oklahoma | | 36 Oregon | | 37 Pennsylvania | | 38 Rhode Island | | 39 South Carolina | | 40 South Dakota | | 41 Tennessee | | 42 Texas | | 43 Utah | | 44 Vermont | | 45 Virginia | | 46 Washington | | 47 West Virginia | | 48 Wisconsin | | 49 Wyoming | | Totals | Examined—Passed | Examined—Failed | Percentage of Failures | No. States Ex. in | Marginal Number |
|---|---|---

Medicolegal

Effect of Injury on Capacity to Bear Children Proper for Consideration

The Second Appelate Division of the Supreme Court of New York holds, in the personal injury case of Devine vs. Brooklyn Heights Railroad Company, that evidence that the plaintiff's capacity to conceive would continue but that she would continually suffer the discomfort and pain of miscarriages, was competent on the question of damages, regardless of the question by which it came in, or of whether it cropped out. It is true, the court says, that the evidence could not be used as a basis for damages for pecuniary loss resulting from deprivation of future offspring, but it could be used as a basis for damages for pain and suffering, and was therefore material and relevant.

If the defendant's counsel feared that the jury might also make use of it to speculate as to how much pecuniary loss the plaintiff would suffer by having no more children to grow up and support and enrich her (after the manner in actions by next kin for deaths by negligence), it was for him to request the trial judge to charge the jury that such damages were not allowable.

It would not do to distort the charge of the trial judge on that head (to which there was no exception), namely, that the plaintiff was entitled to recover reasonable compensation for her pain and suffering, for the deprivation of her natural powers, for the loss of health which was due to this accident, if it was due to it. To say that she was entitled to damage "for the deprivation of her natural powers" was strictly correct, even if limited to a particular delicate meaning, which was not the case. That is true in the case of man or woman. But that is far from even intimating that damages may be given for pecuniary loss resulting from deprivation of future children.

Finally, it may be worth while to point out that the question itself was proper, namely, "What effect does it (the injury) have on her capacity to bear children?" It was just as proper as to ask what effect an injury has on the function, use or capacity of the arm, leg or stomach. The capacity may be made laborious, or painful, or destroyed. The degree of injury is competent to be shown. If the plaintiff were still able to conceive and bear children with regularity and certainty that would be evidence that her womb was not much injured or weakened, and that she could not do so would be evidence strong, corroborative evidence—that the physical condition testified to actually existed, namely, that the womb was retroverted and its ligaments greatly weakened.

Adulteration of Coffee with Lead Chromate

The United States District Court for the middle district of Tennessee, in the case of United States vs. 84 Sacks of Coffee, that coffee colored and coated with lead chromate, a poisonous and deleterious substance, whereby inferiority is concealed and the coffee rendered injurious to health, is adulterated within the meaning of the act of Congress generally known as the Food and Drugs Act of June 30, 1906, and that the coffee of that character seized should be destroyed by being burned.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal

May 8

1 Ephraim McDowell. L. S. McMurtry, Louisville, Ky.
2 Pellagra. J. J. Watson, Columbia, S. C.
3 *Value of the Roentgen Rays in Thoracic Lesions. R. H. Boggs, Pittsburg, Pa.
4 Operation for Frontal Sinus Obliteration Avoiding Supraorbital Deformity and Nasal Scar. A. E. Prince, Springfield, Ill.

3. **Roentgen Rays in Thoracic Lesions.**—Boggs says that out of a series of more than eighty patients whom he has examined for pulmonary tuberculosis, in whom the diagnosis has been confirmed either before or afterward by other methods, he feels justified in summarizing the following points:

1. The extent of the disease is more accurately determined by the x-ray than by the physical findings alone.
2. In doubtful cases the rays often afford sufficient information to make an accurate diagnosis.
3. The rays are a useful method of recording the lesions and of determining the progress made by treatment.
4. The radiogram records nothing but variations in density and leaves the etiologic factors to be determined by other clinical methods.
5. Frequently, when physical signs were present in one side, the radiogram would show infiltration in both lungs.

The Roentgen rays afford also a valuable method of diagnosticating mediastinal tumors.

Medical Record, New York

May 8

5 *Point of View in Medicine. B. Robinson, New York.
6 Re-educational Treatment of Locomotor Ataxia. J. R. Jacoby, New York.
7 *Plea for the Establishment of Hospitals for the Rational Treatment of Inebriates. C. A. Rosenwasser, Newark, N. J.
8 Examination of the Lungs by Roentgen Rays. H. Huist, Grand Rapids, Mich.
9 *Relation Between Aneurism of the Aorta and Tabes Dorsalis. P. H. Biklé, Philadelphia.
10 Eczema. S. Stern, New York.
11 *Cancer Treated with Trypsin. F. B. Golley, Milwaukee.
12 Wholesale Baby Washer. W. P. Northrup.

5. **Point of View in Medicine.**—Robinson cites instances to show the importance of keeping laboratory methods subservient to older and more reliable clinical methods. He insists on the importance of the art of medicine, which can not be based solely on the knowledge of the dead house or laboratory. In our efforts to get rid of tuberculosis, so praiseworthy and encouraging, we must not insist on foolish rules of prevention or cure, thus becoming absolutely cruel to those who most need our sympathy and support. He quotes the admirable counsels in this respect of the Massachusetts State Board of Health. He discusses alcoholism and prostitution, the relation of the general practitioner to the consultant, and the importance of trying to relieve symptoms of disease carefully and intelligently.

9. **Aneurism of the Aorta and Tabes Dorsalis.**—Biklé discusses the question whether the concurrence of these two affections in the same patient—which Lesser has shown to occur in approximately 20 per cent. of the cases of tabes dorsalis—is merely a coincidence, or whether we shall find in such cases tabes itself or a toxin peculiar to the two conditions to be the underlying cause of aneurism. There can be no doubt, he says, that syphilis is one of the most frequent causes of aneurism of the aorta as well as of tabes. He is inclined to believe that the association between the two diseases is merely accidental, and that in such cases each is a parasyphilitic disease independent of the other.

11. **Cancer Treated with Trypsin.**—Golley makes a further report on the two cases of cancer, formerly reported by him, in which the patients were treated with injections of trypsin. The first patient is in fairly good health and considers herself cured, although he suspects that she will have trouble in the future. At present she is free from pain, the surfaces are all healed and she is about her duties as though perfectly well. He describes the condition of the second patient from the fall of 1906 to the summer of 1908, when she died. Up to the last there was marked influence over the general physical condition whenever trypsin was used. The case was one of cancer of the large bowel. Three important points are, that it never became necessary to establish an artificial anus; that the disease changed from an active and rapidly progressive type to a slow and almost stationary one, not only prolonging life, but making it more bearable and wholesome by the formation of membrane over the raw surfaces; and that trypsin appears to exert some influence on the metabolic processes particularly, and to establish a resistance to the cell activity of malignancy.

Boston Medical and Surgical Journal

May 6

13 *Results of Operations for Cancer of the Tongue, Mouth and Jaw a[illegible] General Hospital, 1890, 1901. R. B. [illegible]mons, and R. M. Green, Boston.
14 Random Medical Notes of Travel. G. C. Shattuck, Boston.

15 Intermittent Hydronephrosis Report of Four Cases (continued) D F. Jones, Boston
16 *Circulation of the Lobar Ganglia. J B Ayer, and H F. Aitken, Boston

13. **Cancer of Tongue, Mouth and Jaw.**—Greenough, Simmons and Green conclude their analysis as follows:

1 One hundred and seventy two cases of cancer of the tongue, mouth and jaw appear in the records of the Massachusetts General Hospital in the years 1890 1904 inclusive Of this number 112 patients were operated on, 50 were judged inoperable, and 10 refused operation

2 Of the 112 operations of all varieties, 20 resulted in death within 60 days (17 8 per cent)

3 Of cancer of the tongue and floor of mouth, there were 98 cases of which 62 patients were operated on and 36 cases were inoperable or the patients refused operation Of the 62 patients operated on in 58 (93 5 per cent) the end result is known; 62 cases of operation gave an operative mortality of 8, or 12 9 per cent Of the 58 cases in which the end result is known, 10 patients were free from recurrence 3 years or more after operation (17 2 per cent) Of the 40 cases in which recurrence did take place after operation, in 38 death occurred before the lapse of 3 years after operation Operations for cancer of the tongue involving section or resection of the jaw caused a much higher operative mortality and no greater percentage of cures than the intrabuccal operations

4 Of cancer of the lower jaw, there were 40 cases 28 operable 12 inoperable The operative mortality of 28 cases was 10, or 35 5 per cent In 26 cases of operation the end result is known and in 5 cases (19 2 per cent) the patients were free from recurrence 3 years or more after operation.

5 There were 14 cases of cancer of the upper jaw; 10 patients were operated on and 4 were not The end result is known in 9 of the 11 patients operated on, and in each of these 9, death occurred within 3 years, although there were no deaths as an immediate result of operation

6 Cancer of the tonsil, soft palate, or fauces occurred in 11 cases, 8 of which were inoperable and 4 were submitted to operation. One patient was alive and well 7 years after operation (25 per cent) There was no operative mortality.

7 Cancer of the cheek occurred in 9 cases, 1 of which was inoperable Of the 8 patients operated on, 2 died of operation (25 per cent) and none was cured

8 For reporting statistics of the end results of operations for cancer, a standard should be established, requiring the publication of reports of all consecutive cases entered in the hospital records For the acceptance of percentages of cures pathologic proof of the existence of carcinoma should be presented, and no case should be considered in which the patient has not survived the arbitrary 3 year period

16 **Circulation of the Lobar Ganglia.**—This is a supplement, consisting mainly of half tone illustrations Ayer's and Aitken's findings endorse those of Heubner concerning the anatomy of the circulation of the lobar ganglia—a point of great importance in regard to cerebral hemorrhage—which are at variance with those of Duret at present generally accepted. The essential differences from Duret's teaching are, that the present findings show that the middle cerebral artery has not plainly the predominant share in the circulation of this region, that the caliber of the anterior cerebral artery is not insignificant, but is equal to that of the middle cerebral artery; and that the posterior cerebral artery is not more important than the anterior cerebral artery. Further, the lenticulo optic artery of Duret has not been found in either side of 45 brains (Heubner does not mention it after dissecting 30 brains). The choroid artery supplies the posterior third of the putamen slightly, the globus pallidus, and the inner part of the internal capsule

Lancet-Clinic, Cincinnati

May 1

17 *Surgery of Venereal Diseases of the Rectum. G B Evans, Dayton, O
18 Diagnosis of Diseases of the Accessory Sinuses of the Nose W E Murphy, Cincinnati
19 Improved Method for Preparation of Glycerin Jelly for Macroscopic Specimens G I Hogue, Milwaukee

17. Abstracted in THE JOURNAL, Nov. 21, 1908, p 1806.

Medical Fortnightly, St. Louis

April 26

20 *Suggestion Concerning the Increased Longevity of Life Insurance and Policy Holders B Foster, St Paul.
21 Sudden Blindness P I Leonard St Joseph, Mo
22 Neuritis W F. Waugh, Chicago
23 Food Preservatives H L Harris, New York.

May 10

24 Touring the Lands where Medical Science Evolved, Iberia and Lusitania R G. Eccles, Brooklyn, N. Y
25 Removal of an Intrathoracic Osteosarcoma Involving Five Ribs J F Menestrina, St Louis
26 Stenosis of the Esophagus J. M Bell, St. Joseph
27 Surgical Eponyms M Hagen Chicago

20 Discussed editorially in THE JOURNAL, May 1, 1909, p 1428.

Northwestern Lancet, Minneapolis

May 1

28 Conservatism in Traumatic Surgery W. Courtney, Brainard, Minn
29 Heredity E L Murdy, Aberdeen, S D
30 Tuberculin Treatment of Tuberculous Glands of the Neck. M M Ghent, St Paul
31 Results of Pneumonia, Empyema, and Rib Resection. E H. Payley, Lake City, Minn.
32 *Diphtheria Involvement or Contamination of Wounds E L Tuohy, Duluth
33 Case of Foreign Body in the Trachea. D W Rudgers, Yankton, S. D

32. **Wound Diphtheria.**—Tuohy reports two cases of wounds which have become infected with the diphtheria bacillus. One case was that of a finger, infected in the lumber woods, which had been opened and dressed, but refused to heal. When seen three months later, there was tremendous induration in the axilla, with three sinuses. Actinomycosis was suspected, but pure cultures of the diphtheria bacillus were found on examination. Antitoxin treatment resulted in cure. The second case was a suppurative bunion that had been opened and drained. This also became chronic. When seen one month later investigation here also showed pure cultures of the diphtheria bacillus. A cure was effected in this case too by antitoxin injection It was found that diphtheria cases were being treated in the town and in the hospital from which these men came at the time they were first under treatment. Tuohy suggests that cases of similarly persistent wounds that defy healing without any obvious cause after incision and drainage and under appropriate treatment, should be examined for the diphtheria bacillus, and if this is found, a prompt cure can be promised almost with certainty.

Virginia Medical Semi-Monthly, Richmond

April 9

34 *Typhoid Fever Diet E W. Robertson, Onancock, Va
35 Surgical Treatment of Hemorrhoids L Elliot, Washington, D C
36 Tuberculin in Incipient and Concealed Tuberculosis M D. Hoge, Richmond
37 Empyema of the Maxillary Sinus C. P. Jones, Newport News, Va
38 Some of the Difficulties in the Application of Eugenics to the Human Race G F Lydston, Chicago
39 Abdominal Gun shot Wound with Intestinal Perforations, with Special Reference to the After treatment with "Saline Drip" T Maddox, Union, S C

34 **Typhoid Diet.**—Robertson summarizes the views of 13 prominent clinicians in reply to his inquiries practicallly as follows: The majority of his correspondents advocate liquids, milk and eggs as the chief dietary. One disapproves of milk on the ground of its causing tympany; but the majority of patients taking that diet with impunity as against the minority is obvious. The precautionary measure cited is to discontinue the milk in case of curds, tympany, etc, but until these symptoms arise, so long as the patient is doing well and is nourished, it is useless to ignore such a valuable food stuff. Robertson supposes it could be shown that almost any other of the generally advocated foods listed could cause, seemingly, a disagreement with the digestion Broths might act as a culture medium, eggs are regarded as suspicious sometimes, and we are advised to cut off nearly everything in tympany, etc Even water is possibly taken to excess at times. He knows of but two guiding lines in typhoid fever diet, and they are, to nourish the patient and to have respect for the local conditions in the digestive tract. Finally, he believes that he would be safe in advancing this proposition: Give the patient a sensible nurse and an obtusely bent glass feeding tube, and tell the nurse to give the patient anything that may be easily taken through it, and if curds (when milk is the staple diet) occur, to cut off milk, using in its stead whey with essence of pepsin; or, to give even water only for a few days, should tympany, etc., arise His correspondents show all these points.

Kentucky Medical Journal, Bowling Green

May 1

40 Bacteriology of Typhoid Fever. A Historical Review. J W. Kincaid Catlettsburg
41 The Physician and Nostrums W C Herman, Cincinnati O.
42 Scarlet Fever T A. Frazer, Marion
43 Some Cases I have Lost U L Taylor, Columbia
44 Some Things the General Practitioner Should Know About the Eye W R Burr Auburn
45 Glaucoma J W Conklin, Leitchfield
46 Pneumonia A M Zaring, Smithfield
47 Treatment of Lobar Pneumonia E D. Turner, Sorgho.

48 Pneumonia. L. D. F. Whitaker, Maxwell.
49 Mistakes and Blunders of a Doctor. B. A. Caudle, Hopkinsville.
50 Colles' Fracture. C. A. Vance, Lexington.
51 Tuberculosis. W. L. Nuttall, New Castle.
52 The Choice of an Anesthetic. W. H. Smith, Danville.
53 Idem. S. Iglauer, Cincinnati, O.
54 Serotherapy. B. S. Rutherford, Bowling Green.
55 Placenta Prævia. J. H. Parker, Corbin.
56 Pulmonary Emphysema and its Relation to Tuberculosis. F. W. Lee, Olmstead.
57 Needs of the Medical Profession. B. F. Fyke, Springfield, Tenn.

Archives of Internal Medicine, Chicago

April

58 *Sarcosporidiosis. S. T. Darling, Ancon, Canal Zone.
59 Purpura Fulminans. C. A. Elliott, Chicago.
60 *Value of the Measurements of Chest Expansion and Lung Capacity. H. W. Goodall, and J. L. Belknap, Boston.
61 *Distribution of Tuberculous Lesions in Infants and Young Children. M. Wollstein, New York.
62 *Primary Portal Thrombosis. D. D. Lewis and E. C. Rosenow, Chicago.
63 Antitryptic Content of the Blood Serum in Malignant Disease. M. E. Roche, Baltimore.
64 Method for Estimating Blood Flow in the Arm. A. W. Hewlett, and J. G. Van Zwaluwenburg, Ann Arbor.
65 Primary Pulmonary Arteriosclerosis with Hypertrophy of the Right Ventricle. W. E. Sanders, Alta, Iowa.
66 Demonstration of the *Trichinella Spiralis* in the Circulating Blood in Man. W. W. Herrick, and T. C. Janeway, New York.
67 Meningococcus Septicæmia, with Sterile Cerebrospinal Fluid; Iridocyclitis; Flexner's Serum; Recovery. D. Bovaird, Jr., New York.

58. **Sarcosporidiosis.**—Darling reports a case of sarcosporid-
's occurring in a negro who passed through an attack of
hoid accompanied with necrosis and myositis of some
uscles. Sarcosporidiosis in man is probably extremely rare
and doubtless represents a chance infection, by one of the
sarcosporid[illegible] customary habitat is one of the domestic
ani[illegible] r differentiates the sporozoon from that
[illegible] and St. Remy. These infections appear
[illegible] or no discomfort and the clinical condi-
[illegible]ainly attributed to the typhoid.

[illegible]ent of Chest Expansion.—Goodall and Belknap
[illegible]e following conclusions:

measure of chest expansion has no constant direct relation
lung capacity, and by itself is of comparatively little value
one of the methods of physical examination. Large measures
y indicate good development of the muscles which expand the
st. Owing [illegible] idual variations, normal standards can not
be adopted [illegible]ble, however, that an expansion of from
2 to [illegible] t the maximum capacity under ordinary
con[illegible]

the measure of lung capacity varies di-
ar development, provided the individual
neous conclusions may be drawn from
unless special attention is given to the method
acities of 190 cubic inches, and possibly less, are
normal lungs.
measurements large values only indicate good muscu-
ent. Low values indicate inferior muscular develop-
improper breathing.
aspected pulmonary disease, very little, if any, additional aid
osis is obtained by these measurements. The only positive
the measurements is the aid in determining whether or
rson is breathing properly, and whether or not the mus-
piration are properly developed.

[illegible]erculous Lesions in Infants.—Wollstein summarizes
paper practically as follows:

Of 185 cases showing tuberculosis at autopsy there were 13 in which the tuberculous lesions were limited to the respiratory tract, and only 1 involving the intestines alone. The point of entrance for the tubercle bacillus in these 14 cases was clearly in the lungs 13 times and in the intestinal tract once.

In the majority of cases of extensively generalized tuberculosis in young children the exact point of entrance must remain in doubt. Although the lungs were involved more frequently than any other organ (in 96 per cent. of all cases), this proves their marked predisposition to tuberculosis rather than their primary infection.

This study shows how comparatively rare undoubted cases of intestinal tuberculosis were in this series of infants and children under 3 years of age; and how, even when due allowance has been made for all doubtful cases, tuberculosis of respiratory origin predominated over that due to ingestion of the bacillus in these subjects.

62. **Primary Portal Thrombosis.**—Lewis and Rosenow report a case, summarize the twenty cases from the literature, discuss the symptoms, diagnosis and treatment and draw the following conclusions:

1. A careful bacteriologic examination of the blood, using media which favor the growth of the highly parasitic bacteria, will establish the etiologic rôle that bacteria play in portal thrombosis.

2. It is impossible to differentiate between thrombosis of the mesenteric arteries and veins, but a probable diagnosis of circulatory ileus can be made if the history reveals some previous illness that is frequently associated with inflammatory changes in the arteries and veins.

3. The procedure to be adopted depends altogether on the conditions revealed by the exploratory operation. A record of four recoveries in twenty-one cases in which operation was performed, indicates that surgical intervention is not futile.

United States Naval Bulletin, Washington, D. C.

April

68 Treatment of Tuberculosis and the Results Observed During the Year 1908. B. L. Wright, U. S. Navy.
69 Laboratory Studies and Observations During 1908. A. B. Clifford, U. S. Navy.
70 Tonsillar Hypertrophy; A Menace to the Service. B. F. Jeness, U. S. Navy.
71 *The Ice-Bag in the Treatment of Typhoid Fever. G. T. Smith, U. S. Navy.
72 *Treatment of Typhoid Fever by Colon Irrigations. C. G. Alderman, U. S. Navy.

71. **The Ice-Bag in Typhoid.**—Smith speaks highly of a large abdominal ice-bag covering the whole area below the umbilicus and kept there constantly until the temperature falls to normal. A towel is used beneath the bag. The effect was markedly beneficial, no baths or spongings were required, no tympanites occurred, and there was no delirium or hemorrhage from the bowels.

72. **Colon Irrigations in Typhoid.**—Alderman reports the successful result in an epidemic of typhoid at the United States Naval Hospital, Las Animas, of a treatment previously unsuccessfully tried and discarded. If the patient is seen before the eighth day he is purged freely with calomel, 3 grains, sodium bicarbonate 5 grains, followed in three hours by half an ounce of magnesium sulphate. If seen after the eighth day the physician must exercise his judgment as to whether purging is safe. A low enema is given when a bowel movement is pending, and, immediately following, a high enema at 85 F. to flush the colon—between 1 and 2 quarts. Both enemas are of plain water. The next two enemas are to be given at a temperature of 80 F. and dropping to 70 F., at which temperature they will be continued. They are given at three-hour intervals so long as the temperature is above 100.6 F. Milk from 5 to 6 ounces is given every three hours with lime water; also all the water the patient wants to drink. Neither diarrhea nor constipation is a contraindication. He discusses the rationale of the process, and says that it is not plain that this treatment reduces the temperature after each enema, as baths do, but the fastigium is lower; and if any symptoms of septic absorption are present they are scarcely noticeable. No delirium is seen, nor is there the anxious look, the dull heavy eye, the muscular twitching, etc. The patient complains of no headache or other pain, has a bright appearance, and there is little or no tympany. The patient actually loses the so-called typhoid facies which every physician is accustomed to see.

Philippine Journal of Science, Manila

December

73 *Streptothricosis, with Special Reference to the Etiology and Classification of Mycetoma. W. E. Musgrave, M. T. Clegg, and M. Polk, Manila.
74 Trichocephaliasis. W. E. Musgrave, M. T. Clegg, and M. Polk, Manila.

73. **Streptothricosis.**—Musgrave, Clegg and Polk remark on the confusion in nomenclature resulting from the transition from a clinical picture to an etiologic diagnosis, and to the discovery that to the same organism that produces madura foot, lesions in the other parts of the body are found also to be due. They discuss the different methods of classification adopted by botanists, describe animal experiments, and review the literature of the subject with the following resulting conclusions:

There is in human pathology, a very important group of branch
ing, filamentous micro-organisms which logically belong to a sing
genus. The generic name is variously given as *Streptothrix, Act*
omyces, or Nocardia; the last of these names is probably sc
tifically the most correct, but because of the present botanical
fusion and uncertainty the first is here employed, because of
more general acceptance.

The following species, to judge from our work and from a s
of the literature, are the most important and may be recogniz
established. There are probably a number of others but th
scriptions of many of them are too imperfect to allow of their
nition: *Streptothrix actinomyces*, Bostroem, 1890; *Strepto*
actinomyces, Wolff and Israel, 1891, and Wright, 1905; *St*
thrix nocardii; Streptothrix maduræ, Vincent; *Streptothrix*
Silberschmidt.

The disease caused by infection with these parasites is pro
named streptothricosis, with actinomycosis and nocardiosis as
onyms. Other names, such as lumpy jaw, madura foot and
toma, should be considered more as describing anatomic lo

rather than as designations relating to any special or specific cause of infection. Mycetoma might well be taken as the correct name for the group of infections if a strict interpretation of rules of nomenclature is followed, but usage renders it perhaps more desirable to retain the name as representing *Streptothricosis pedis*. If mycetoma is to be considered in any more comprehensive light than this, it should become another synonym for streptothricosis. It should not be considered a disease caused by organisms other than *Streptothrix*.

They then discuss streptothricosis (synonyms: actinomycosis, nocardiosis), which they define as an infectious disease of man and animals caused by one or more species of *Streptothrix*. They tabulate their experiments. As to treatment, potassium iodid in large doses over a long period is generally admitted to have a favorable influence on the course of the disease, and complete cures have been reported; locally, antiseptic dressings and the Roentgen ray, surgical measures, drainage, removal or amputation were employed, according to the locality and extent of the lesion. A combination of all these forms would seem to promise the most favorable opportunity for recovery.

Chicago Medical Recorder

April

75 *Advantages and Disadvantages of Cooperation and Business Partnership Among Medical Men. C. A. Wood, Chicago.
76 *Question of Division of Fees From the Surgeon's Standpoint. J. F. Percy, Galesburg, Ill.
77 Therapeutic Use of Solidified Carbon Dioxid. W. A. Pusey, Chicago.
78 *Renal Calculi. D. N. Eisendrath, Chicago.
79 *Thermic Crises in Locomotor Ataxia, with Report of a Case. G. Campbell, St. Louis.
80 *Rôle of the Free Dispensary in the General Crusade Against Tuberculosis. S. Klein, Chicago.
81 Unique Foreign Body in the Male Bladder and Removal by Suprapubic Cystotomy. H. O. White, and R. R. Duff, Chicago.
82 Papilloma of the Larynx with Extralaryngeal Operation. D. A. Vanderhoof, Rockford, Ill.
83 Are there Evil Effects from the Removal of the Faucial Tonsils? J. E. Rhodes, Chicago.

75, 76. Abstracted in Department of Medical Economics, THE JOURNAL, May 15, 1909.

78. Published also in *Southern Medical Journal*, February, 1909. This paper appears to be in the main identical with that read before the Western Surgical and Gynecological Association and abstracted in THE JOURNAL, Jan. 30, 1909, p. 413.

79. **Thermic Crises in Locomotor Ataxia.**—Campbell gives the history of a case supposed originally to be one of malaria, in which hard chill, followed by high fever, and later by sweating occurred at intervals; the highest temperature point recorded was 106.6 F. A striking feature was the lack of constitutional symptoms one would expect as an accompaniment of so high a body temperature. While Campbell can not assert positively that the high temperature attacks observed in his patient were tabetic crises, the facts that lead him to present them as probably of such a nature are:

1. Absence of any evidence of the usual causes that produce fever, either at the time of the attacks or after the attacks subsided, it appears very improbable that any of the usual causes apt to produce fever could produce such high temperature several times and yet leave the temperature as the only evidence of their presence.
2. The sharply paroxysmal nature of the temperature disturbance.
3. The fact that such occurrences, while very unusual, have been reported in the past.

80. **The Free Tuberculous Dispensary.**—Klein assigns the following as the functions of the tuberculous dispensary: To care for ambulatory cases, to refer incipient cases to sanatoria, to watch and supervise patients discharged from sanatoria, to examine other members of the family, to disseminate information, and to aid the health department. He discusses each of these points.

Wisconsin Medical Journal, Milwaukee

April

84 Partial Report of the Epidemic of Acute Anterior Poliomyelitis in Wisconsin During 1907-1908. J. Manning, Eau Claire.
85 Medical, Ethical and Forensic Aspects of Fatal Criminal Abortion. W. Becker, Milwaukee.
86 Surgical Treatment of Chronic Lachrymal Disease, with Report of Cases of Extirpation of the Lachrymal Sac. G. E. Seaman, Milwaukee.
87 Anaphylaxis. K. W. Smith, Madison.
88 *After Care of Obstetric Cases in a Country Practice. M. V. de Wire, Sharon.

88. Abstracted in THE JOURNAL, Aug. 8, 1908, p. 523.

Buffalo Medical Journal

May

89 Improved Medical Course. I. N. Snively, Philadelphia.
90 Case of Pneumopericardium. J. Burke, Buffalo.

Journal Abnormal Psychology, Boston

April-May

91 Mechanism of Amnesia. I. H. Coriat, Boston.
92 *Rôle of Sensations and Feelings under Ether. C. H. Johnston, Ann Arbor.
93 Importance for Research and Treatment of Distinguishing Clinical Types Among the Psychoneuroses. T. A. Williams, Washington, D. C.
94 *The Unconscious (concluded). M. Prince, Boston.

92. **Sensations and Feelings Under Anesthetics.**—Johnston gives a study of the sensations and feelings under ether in the case of two brothers, which lead him to the conclusion that the data in hand are insufficient to enable one unprovisionally to conclude anything definite concerning the fundamental psychologic problem as to what is the most serviceable conception of the relationship of sensation and feeling or affection. The special sense organs become inactive long before general consciousness is lost. Vision and audition cease before touch and sense of position. A feeling (anguish or anger, etc.) is the most persistent mental state. In the process of gradual recovery of normal consciousness feeling is first reinstated. Purely intellectual activity, without images, is next in order. Vague tactual sensations, pressure, and sense of position return before sight and hearing. All these, together with partial restoration of inhibitory power, are not sufficient to enable one, however, to feel normal, to be an inhibiting individual, or to grasp one's characteristic relation to one's environment. Physical pain seems to be here one of the necessary mental conditions for this self realization. Due chiefly to this intense mental activity, sleep is induced with great difficulty. Finally there seems to be some evidence, from this "feeling one's self as a disembodied spirit," from this conviction that all sensation is for the time localized in the head, and from the absolute loss of all inhibitory power and of the experience of pain, that there may be such a physiologic situation in which some so called higher centers work independently, paralleled by vivid, if not constructive, imageless, intellectual activities. In short, this field would seem to be a fruitful one for further and more comprehensive psychologic, as well as strictly neurologic, investigations. Such possible results might nicely supplement other at present more systematically directed methods into these as yet unexplained phenomena.

Legitimately, it seems, we may be inclined to justify the position of those psychologists, at present in the minority, who claim that there is no inseparable connection of sensation with feeling tone.

94. **The Unconscious.**—Prince concludes his analysis of the unconscious by a consideration of the evidence from dormant complexes which never form a part of the experiences of the personal self inasmuch as they originated in dissociated states, such as hypnosis, alternating personalities, dreams, trance and other hysterical conditions, etc. The origin and even the existence of such complexes is necessarily unknown to the personal self. In the psychologic results of suggestion given in hypnosis, known as posthypnotic phenomena, we have perfect examples, not only of the experimental formation of dormant complexes, but of the influences of these complexes on the personal consciousness, and we can study the mechanism of this influence, which has not hitherto received the attention it deserves. In it, too, we can study the psychologic principle of psychotherapeutics; for every therapeutic suggestion given in hypnosis, if successful, clearly becomes a postnypnotic phenomenon. Taking the facts of experimental investigation as data, Prince suggests three methods by which dormant hypnotic complexes affect the personal consciousness and, in fact, the whole personality: 1. Through the formation of co-conscious ideas. 2. Through the persistence of the emotions created in hypnosis. Although the ideas giving rise to them disappear, the prevailing feelings, whether joyous or depressing, aroused in hypnosis remain,

wherefore it is important to take care before a subject is allowed to wake, that depressing ideas are removed and those with a healthy, invigorating, emotional tone implanted. The power of emotion in invigorating or depressing all vital processes according to its character is well known. Moreover, the persistence of the emotional tone after the rest of the complex becomes dormant is not peculiar to posthypnotic phenomena, but is observed in every-day life. The difference between them is that in one case we can, if we will, and in the other we can not recall the origin of the feeling, but in either case we do not. Dormant dream complexes may give rise to similar phenomena. 3. Suggestion in hypnosis gives rise to fixed ideas, which persist after waking as organized unconscious complexes. Then, as a result of stimulation by associated ideas from the environment acting as *points de repère*, these complexes become conscious again and interwoven with, and substituted for, the ideas which happen to be in the personal consciousness at any given moment. He discusses this subject at some length.

Louisville Monthly Journal of Medicine and Surgery

May

95 Ischemic Paralysis or Volkman's Contracture. W. O. Roberts, Louisville.
96 Prostatism. L. Frank, Louisville.
97 Physicians of Clark County, Ind. D. L. Field, Jeffersonville, Ind.

Archives of Diagnosis, New York

April

98 *Diagnosis of Intestinal Autointoxication. J. M. Anders, Philadelphia.
99 *Diagnosis of Smallpox. J. M. Armstrong, St. Paul.
100 *Diagnosis of Fibroid Degeneration of the Appendix. R. T. Morris, New York.
101 Differential Diagnosis in Cases of Appendicitis. J. J. McGrath, New York.
102 Errors in Abdominal Diagnosis. A. J. Walschied, Union, N. J.
103 *Early Allusion to Accurate Methods of Diagnosis. J. J. Walsh, New York.
104 *Significance of the Red Ring when Examining Urine by Nitric Acid Contact Test. R. H. M. Dawbarn, New York.
105 The Acetone Bodies in the Urine and the Ferric Chlorid Reaction. H. Stern, New York.
106 Multiple Sclerosis. Its Occurrence in Families. T. H. Weisenburg, Philadelphia.
107 Subdural Abscess Followed by Internal Hydrocephalus of Traumatic Origin. A. Gordon, Philadelphia.
108 *Acute Ascending Lethal Paralysis After Antirabic Treatment. J. R. Fabricius, New York.
109 Plastic Radiography. G. M. McKee, New York.

98. **Intestinal Autointoxication.**—Anders says that the disease is often attributable, not so much to microbic action as to the products of intestinal fermentation. There are three main factors: (1) Ingestion of excessive albuminous food; (2) certain intestinal lesions, including defective motility; (3) abnormalities of metabolism. From personal observation, Anders is also convinced that fat and sugar, taken in quantities above the physiologic capacity of the organism, are responsible in certain cases. When the eliminative processes are defective a marked predisposition to the condition exists. Cases should be subdivided etiologically into gastric and intestinal forms of chronic autointoxication. The great majority of cases, however, are of intestinal origin. He discusses the symptomatology and says that his personal experience indicates an increase in the elimination of indican in practically all cases. He has further demonstrated the fact to his own satisfaction, that indican is increased most decidedly in the cases showing marked residual accumulation throughout the colon. This urinary constituent, therefore, is of the utmost importance for both diagnosis and prognosis, and chemical examination of the urine. The microscopic urinary findings are unimportant. He has observed marked acetonuria in the preponderating proportion of his cases of intestinal origin. The nervous system, more particularly the vasomotor tract, is decidedly affected by the irritant autotoxins. It is exceedingly important, however, to distinguish between nervous disturbances induced by the absorbed toxic substances and those resulting from primary changes in the neuromechanism of the body. The diagnosis of this condition should always be made with caution and reserve. It is not permissible to regard the given case as one of chronic alimentary intoxication, retrospectively, merely because the symptoms have disappeared as the result of an eliminative plan of treatment, since this method also serves other disposing and exciting causes. In connection with the principal causative factors—notably impaired metabolism, dietetic errors, and certain pathologic conditions of the intestinal tract, e. g., mucous colitis and chronic appendicitis—the following symptom group would suffice for an assured diagnosis: Heavily coated tongue, fetor of breath, indications of Rigg's disease, headache at intervals, insomnia, marked constipation, evidence of fecal accumulation in the colon, the elimination of an increased amount of indican and the frequent presence of acetonuria. Though experimental evidence may be wanting to show that the development of gout, arteriosclerosis, nephritis, and other forms of degeneration is, in some instances at least, dependent on autointoxication, clinical experience and observation lend striking confirmation to this view.

99. **Smallpox.**—Armstrong states that the diagnosis of this disease must often rest wholly on the objective lesions of the skin.

1. Except in rare instances, and only in the presence of an epidemic, is the positive diagnosis of smallpox justified before the appearance of the skin lesions.
2. The history of pre-eruptive illness serves only to confirm the diagnosis as made by the senses of sight and touch.
3. The smallpox papule has characteristics which make a positive diagnosis possible within a few hours of its appearance.
4. The papules appear first on the exposed parts, particularly the forehead and flexor surfaces of the wrists. They are under the epidermis, hard, round, flat-topped, umbilicated, rose-pink, and waxy in appearance. All these characteristics are usually present.
5. In general, the entire course of evolution of the lesion from papule, vesicle, pustule, to scab formation is regular and characteristic.
6. The lesions vary in number. They may be few, or so numerous as to become confluent, but the individual characters of the lesion are present in all cases.

100. **Fibroid Degeneration of the Appendix.**—Morris gives the following as the salient diagnostic point in cases of fibroid degeneration of the appendix in the following order of importance:

1. Hypersensitiveness at the site of the right group of lumbar ganglia.
2. Distention of the cecum and ascending colon as far as the hepatic flexure, and this distended part of the bowel is filled with gas.
3. More or less persistent discomfort at the site of the appendix.
4. The presence of an intractable intestinal dyspepsia for which no other cause has been found.
5. Lastly, palpation of the appendix in many cases will bring out clear evidence of a small, hard, fibrous appendix.

103. **Medieval Laboratory Diagnosis.**—Walsh cites some interesting passages from the works of Cardinal Nicholas of Cusa, who lived in the middle of the fifteenth century, to show that he recommended the estimation of the pulse, and of the respirations by the clepsydra, or water clock, and also the application of the method of specific gravity to the urine and possibly the blood.

104. **The Red Ring in Heller's Test.**—Dawbarn calls attention to a diagnostic sign sometimes found in the urine. On contact with cold nitric acid, with or without the presence of the white line of coagulated albumin, there is to be seen, and far from rarely, a red line of varying width. It is never so sharply defined at its points of contact with the acid below, and the urine above, as is the line of albumin, but it is to be recognized with the utmost ease. When albumin is also present the red line in question will be found just above the albumin.

108. **Acute Ascending Paralysis Following Antirabic Treatment.**—Fabricius reports a fatal case of acute ascending paralysis following antirabic injections subsequent to the bite of a dog. Examination showed the dog not to have had rabies, and it is concluded that there was a causative relationship between the antirabic treatment and the disease.

Ophthalmic Record, Chicago

April

110 Herpes Zoster Frontalis Associated with Glaucoma. A. A. Bradburne, Southport, Eng.
111 Modification of Buller's Shield. B. J. Knapp, Evansville, Ind.
112 Improvement on the Cross-Cylinder. J. N. Rhoades, Philadelphia.

Archives of Ophthalmology, New York

May

113 Incision of the Eye, Especially Incisions for Extraction of Cataract and Relief of Glaucoma. W. L. McKechnie, Jullunder, Punjab, India.
114 Original and Absolutely Reliable Suture for Tucking or Shortening an Ocular Muscle. G. A. Suffa, Boston.

115 Congenital Connective Tissue Formation in the Vitreous, Probably Arising from the Optic Nerve H F. Hansell, Philadelphia
116 Formation of Pupillary Membranes after Cataract Extraction. E S Thomson New York
117 Operative Treatment of Separation of the Retina Reports of Cases Treated by Scleral Puncture. E K Ellis, Boston
118 Scleral Collapse During Cataract Operation J S Fernández Havana, Cuba
119 Paralysis of the Inferior Oblique Muscle of the Left Eye M Cohen, New York.

Montreal Medical Journal

April

120 *Pathology and Treatment of Diabetes Mellitus, Viewed by the Light of Present Day Knowledge (concluded). F. W Pavy, London, Eng
121 *Anterior Metatarsalgia A M Forbes, Montreal.
122 Diphtheritic Paralysis A H Gordon, Montreal
123 *Pathologic Discovery and Its Bearing on Preventive Medicine. J. G. Adami, Montreal
124 Surgical Tuberculosis E M. von Eberts, Montreal
125 *Organized Pleural Adhesions and Their Relationship to Tuberculosis, Based on an Analysis of 1,374 Consecutive Autopsies A. R Landry, and J G Adami, Montreal

120 Published in the *Lancet*, Dec. 12, 1908.

121. **Anterior Metatarsalgia.**—Forbes discusses the literature and the history of this subject. Its causation he divides into general and specific. The general causes are general debility and excessive body weight in proportion to the strength of the foot. The specific causes are: 1. The use of too short or too narrow a boot causing extension of the proximal phalanges with flexion of the distal phalanges This results in a depression of the arch as is clearly demonstrated in casts of feet in this condition. 2. The use of a boot with too high a heel throwing the body weight on the anterior arch. 3. The use of a boot with too thin a sole, which insufficiently protects the anterior arch. The symptoms are as follows:

1 Pain—either of a constant character or spasmodic, as described by Morton
2. Tenderness—found on pressure from beneath over the heads of one or more metatarsal bones, or on lateral pressure in the region of the metatarso phalangeal joint
3. Swelling and edema—may be so severe as to simulate gigantism, erythromelalgia or acromegaly
4 Extension of phalanges—often postural and accompanied by flexion of middle and distal phalanges This may simulate deformities following anterior poliomyelitis
5 Muscular spasm—usually of extensors of toes It is reflex in nature and causes a deformity resembling the conditions in No 4.
6 Callosities on sole—frequent, and adding to the pain of a mild case

The diagnosis of anterior metatarsalgia requires its differentiation from: (1) The chronically strained posterior arch; (2) tuberculosis of the tarsus, rheumatism, the so called rheumatoid disease, and gout; (3) gigantism, erythromelalgia or acromegaly; (4) postural deformities, and (5) deformities resulting from the paralyses The treatment naturally resolves itself into (1) protection against lateral pressure, and (2) the elevation or support of a depressed arch, with suitable protection of the plantar surfaces of the heads of the bones. The elevation of the forepart of the foot is also of importance. Operative treatment, as suggested by Morton, should be applied only in those chronic or resistant cases in which conservative treatment has failed. In certain cases characterized by great spasm of the extensors, causing extension of the toes, the transference of the attachment of these tendons to the dorsal aspect of the heads of the metatarsals may be considered

123. Published in the *New York Medical Journal*, March 20, 1909; abstracted in THE JOURNAL, April 3, 1909, p 1140

125. Abstracted in THE JOURNAL, Oct. 24, 1908, p 1449.

Maryland Medical Journal, Baltimore

May

126 *The Faculty and its Library. A K. Bond, Baltimore.
127 Intestinal Obstruction J C Bloodgood Baltimore
128 Claudius Galen H M Cohen, Baltimore
129 Hemiplegia as a Complication of Typhoid J B Piggott, Baltimore

126. Commented on editorially in THE JOURNAL, May 15, 1909, p. 1586

Yale Medical Journal, New Haven, Conn.

April

130 Modern Treatment of Syphilis R A McDonnell, New Haven
131 Diagnosis of Diseases Affecting the Pylorus, Duodenum and Bile Passages L M Gompertz New Haven
132 *Retinal Hemorrhages and Arterial Hypertension. E M. Blake, New Haven.

132. **Retinal Hemorrhages.**—Blake says that the frequent association of retinal hemorrhages with disorders of the circulatory system emphasizes the close relationship between ophthalmology and internal medicine. The significance of a retinal hemorrhage extends beyond the disturbance of vision produced to some profound disturbance of the bodily function. The earliest definite signs which allow one to diagnose sclerosis are three: First, the corkscrew appearance of the small twigs at the macula and periphery; second, flattening of the veins by the arteries; and third, the dull red congestion of the nerve head. This last sign is thought by Reber to indicate a more advanced stage of the process Retinal hemorrhage may be grouped into four types: (1) simple hemorrhage into the fiber layer of the retina; (2) hemorrhagic retinitis, that is, hemorrhage with some edema and exudates in the retina; (3) subhyaloid, a hemorrhage between the retina and the hyaloid membrane covering the vitreous; and (4) vitreous hemorrhage, an extravasation sufficient to burst into the vitreous humor If a patient in middle life comes complaining of a blur of sudden onset, he should not be told that it is a trifling affair which will pass off, but a careful fundus examination should be made, best with a dilated pupil If a little extravasation of blood or any evidence of vascular changes be found, which often can be detected in no other way in the early stage, the case should be thoroughly studied by the internist. The examination of the urine, blood, and especially blood pressure, which is so easily determined, may point to the necessity for medication and changes in the life habits which may spare the patient serious accidents and give him many years of life

Detroit Medical Journal

April

133 Atypical Graves' Disease C G Jennings, Detroit, Mich
134 *Surgical Treatment of Genital Hernia W P Manton, Detroit
135 Mechanical Symptoms Produced by Enlarged Thyroid A Mc Lean Detroit
136 Practice of Medicine F B. Tibbals, Detroit.

134. **Genital Hernia.**—After reviewing the history of the development of the surgical treatment of genital hernia and the operations used or suggested at the present time, Manton says that in all these operations we must depend largely on individual experience, rather than on accumulated hospital statistics, for, until a common standard of observation can be formulated, if such is possible, surgeons will differ in their opinions according to individual interpretation either of their own work or another's work

St. Louis Medical Review

April

137 *Suggested Treatment of Leukemia Based on Clinical Observation and Animal Experiment L K Baldauf, St Louis
138 *Danger of Laboratory Diagnosis D L Harris, St Louis
139 *Interrelations of the Medical and Legal Professions F R. Fry, St Louis
140 Mild Myxedema of Long Duration W H Rush, St Louis
141 Carcinoma of the Rectum C H Dixon, St Louis

137. **Treatment of Leukemia.**—Baldauf suggests the injection of bacterial toxins in the treatment of leukemia. He bases his suggestion on certain observations of Dock and Longcope The author's results in myelogenous leukemia, although not entirely satisfactory, give him reason to hope for much more from selected and more favorable cases with the use of Coley's fluid

138 **Laboratory Diagnosis.**—Harris says that while the value of a laboratory report depends on the skill, experience, and intelligence of the laboratory worker, no amount of skill on his part will compensate for carelessness or ignorance on the part of the physician who secures the material. The laboratory report should be valued as only one link in a chain of evidence A simple negative report is valueless unless it coincides with all the clinical manifestations. The microscopist should never be permitted to make the diagnosis; neither should he be expected to relieve the physician of the necessity of a thorough clinical study of the case.

139. **Interrelations Between Medical and Legal Professions.**—Fry points out the essentially different viewpoints in law and medicine, when it comes to the question of adjusting the rights and privileges of individuals and of society. He in-

British Medical Journal, London

April 24

10 *General Principles in the Treatment of Diseases of the Heart. Sir J. Barr.
11 Heart Block, with Fibrous Degeneration and Partial Obliteration of Bundle of His. B. Bramwell.
12 Pulsus Bigeminus. E. E. Laslett.
13 Ineffectiveness of Calcium Salts and of Citric Acid as Used to Modify the Coagulation Time of the Blood for Therapeutic Purposes. T. Addis.
14 Typhoid Complicated with Staphylococcal Septicemia. N. E. Roberts and E. E. Glynn.
15 *How Much Fluid does the Body Require? A. Haig.
16 *Occurrence of Tubercle Bacilli in the Blood in Tuberculosis. C. E. P. Forsyth.
17 Chronic Nephritis Terminating with Hemorrhage from the Bowel and Perforation of the Bowel. L. G. J. Mackey.
18 Roentgen Cinematography and Its Importance in Medicine. F. M. Groedel.
19 Tetanic Spasm. W. S. Stevenson.
20 Histology of Egyptian Mummies. M. A. Ruffer.

10. **Treatment of Heart Disease.**—Barr says that there are very few chronic diseases so amenable to treatment and so compatible with a long life of comfort, if judiciously handled, as those of the heart. Rheumatism holds the first place in its causation. In rheumatic fever there is a marked increase of sarcolactic acid, therefore all foods, such as starch and milk, which give rise to formation of lactic acid, should be omitted. There is also a tendency to fibrin formation, so that everything containing lime, *e. g.*, milk, and its preparations, cheese, gelatin, and animal jellies, should be interdicted. Also, lime raises the blood pressure. An excellent diet for rheumatic fever consists of plenty of hot water, mincemeat and poached eggs, pounded chicken, steamed sole, and other nitrogenous foods. If a carbohydrate is required, well-boiled porridge may be given. Oranges and lemons may be freely used, and later, a fair amount of farinaceous food with plenty of fruit and vegetables, but no milk. Patients with mitral lesions should drink as little fluid as possible, not more than two pints a day, and should be kept on a light dry diet. Alcoholic drinks should be interdicted, tea and coffee with cream may be taken. Lemon squash is a good drink. Tobacco should be forbidden, and in any tendency to edema salt should be eliminated from the diet. Barr then discusses the hygiene, particularly recommending the morning bath from 60 to 90° F., followed by coarse friction. He goes at length into the questions of rest, exercise, and medicinal treatment, under which last head he particularly warns against excessive lime salts in the blood. There is no condition of the heart in which alcohol is beneficial, save spasmodic affections, and in these nitroglycerin, morphin and atropin are better remedies. Patients with heart disease do better without tobacco. By the method of treatment he details —which should be read in its entirety—Barr asserts that not only may the progress of degenerative heart lesions be stayed, but often their onset may be prevented.

15. **The Intake of Fluids.**—Haig holds that the amount of fluid usually taken is more a habit than a necessity. Most patients can reduce their fluid intake with benefit to 30 ounces a day, and with the help of fruit to 25 or 20 ounces. Salts, salines, and diuretics call for more fluids. By diminishing the fluids the blood pressure can be lowered 20 or 30 mm. of mercury, thus enabling some high pressure cases to turn the balance. The gain to a diseased or dilated heart is obvious. The objections to be considered are the retention of urates and constipation; but in cases of heart disease these are secondary considerations and may be dealt with by other means, *e. g.*, a purin-free diet for the urates, and laxatives for the constipation.

16. **Tubercle Bacilli in the Blood.**—Forsyth says that tubercle bacilli may commonly be found in the blood of tuberculous patients. Using Rosenberger's method (*American Journal Medical Sciences*, February, 1909), he examined the blood in 12 cases of pulmonary tuberculosis, in 10 of which there were distinct physical signs, with tubercle bacilli in the sputum. All showed tubercle bacilli free in the blood. They were few in number, not grouped, and found with difficulty. In one case phagocytosis was noticed, in only one was there evidence of mixed infection in the blood. Forsyth points out that if it be completely proved that living tubercle bacilli occur in the blood of practically every tuberculous patient, no matter how early or circumscribed the lesion appears to be, without doubt our ideas as to the use of tuberculin must be considerably modified. The method of examination is as follows: The skin of the front of the forearm is thoroughly cleansed with liquid soap, alcohol and ether. A tourniquet is applied, and with a sterile syringe fitted with a platino-iridium needle, previously flamed, about 5 c.cm. of blood are drawn from any convenient vein. The blood is at once mixed with about an equal volume of sterile citrated salt solution. The mixture is placed in a swift running centrifuge for twenty minutes, and some of the deposit taken up on a slide to form a thick film. This is dried in an oven at 60° C., and is then placed in sterile distilled water to lake the blood. Thereafter the film is fixed and stained in the usual way.

Medical Press and Circular, London

April 21

21 Renal Calculus. A. Fullerton.
22 *Treatment of Labor in Contracted Pelvis. F. Schauta.
23 Primary Carcinoma of the Vagina. G. W. Fitzgerald.
24 Oxalate of Cerium. J. C. McWalter.

22. **Contracted Pelvis.**—Schauta describes the development of the principles governing the treatment of labor in cases of contracted pelvis. He divides the operation into three main groups: indicated measures, prophylactic operations and surgical operations. The first includes those operations indicated, not so much by the pelvic contraction, as by complicating anomalies of labor. They are the application of the forceps with the head in the pelvis, turning from a transverse presentation, breech extraction, craniotomy on the dead child, and decapitation. The prophylactic operations are interruption of pregnancy and prophylactic version. Some place the application of forceps above the brim in this group. The surgical operations sacrifice the integrity of the mother's tissues in favor of the child by widening the pelvic space—symphyseotomy or hebotomy; or by providing an artificial channel—Cesarean section. He discusses how far, in cases of contracted pelvis, we can count on spontaneous birth. It affords by far the best solution of many complicated problems and is more frequently possible than appears from statistics. By premature interference many cases of labor are directed into a wrong course and result in great injury to mother and child. At Schauta's clinic about 80 per cent. of the births with narrow pelvis actually occur spontaneously, taking into account only full-term births. The expectant treatment gives by far the best results for the mother, as regards both mortality and morbidity. He does not find that the prophesied evil consequences occur. With regard to Cesarean section, he holds that while we must not perform any operation without the consent of the patient, assuming this general consent, the choice of the operation should be left in all its details to the operator. It is high time that we should break with the tradition of the time when Cesarean section was a deadly operation. It is the habit of making an emergency operation of it that is the cause of such troubles and dangers as occur—insufficient preparation of patient, instruments and physician's hands, and a patient already exhausted and possibly septic. The idea that the country practitioner should not perform Cesarean section will disappear when he is trained to that as he is trained to the use of the forceps, etc. Reviewing his experience he says the management of labor in contracted pelvis will shape itself in the future in the following simple manner, provided it is carried out from the very commencement in a skilful manner and in an institution under strict asepsis. In patients with a conjugate above 8 cm. there is a possibility of spontaneous birth, and therefore expectant treatment is to be adopted. In women under 8 cm., Cesarean section is to be kept in view. In cases bordering on the above, *i. e.*, a conjugate of from 8.5 cm. to 7.5 cm. hebosteotomy is to be considered. This operation in a conjugate of from 8 cm. to 8.5 cm. would be an alternative operation to spontaneous birth; in a conjugate of 7.5 cm. to 8.5 cm. an alternative to Cesarean section. The choice would be determined by the size and hardness of head, the strength of labor pains, the voluntary efforts and general condition of the patient.

This method of treatment should be looked on in the future as typical. All other methods hitherto used in the treatment of labor in contracted pelvis should be looked on as non-typical.

Clinical Journal, London

April 21

25 Some Useful Prescriptions in the Practice of Gynecology. V. Bonney.
26 Results of Nasal Obstruction. S. Hastings.
27 Autoinoculation Versus Heteroinoculation in the Treatment of Established Infection (continued). E. C. Hort.

Journal of Tropical Medicine and Hygiene, London

April 15

28 Hemogregarines and Parasitology. L. W. Sambon.
29 Blackwater Fever. J. G. St. G. Queely.

Practitioner, London

April

30 Local Anesthesia in Regard to Causation of Idiopathic Paralysis and Dilatation of the Urinary Bladder. F. P. Weber.
31 Treatment of Extroversion of Bladder by Implantation of the Ureters into the Rectum. C. A. Ball.
32 *Increased Death Rate from Diabetes, and the Possibility of Preventing the Disease, or of Postponing its Onset. R. T. Williamson.
33 Cancer of Tongue. A. Don.
34 Treatment of Ischiorectal Abscess and Fistula. P. L. Mummery.
35 Considerations Involved in the Treatment of Mental Disease. C. H. Fennell.
36 Acute Infective Osteitis. H. W. Kaye.
37 Rhiologic Treatment of Consumptives. W. C. Rivers.
38 Diagnosis and Treatment of Gonorrhea. J. E. R. McDonagh.
39 *Chronic Infantile Paralysis Diagnosed as Morbus Coxæ. F. Hernaman-Johnson.
40 Operative Technic of a General Practitioner. A. J. F. Clarke.

32. **Death Rate of Diabetes.**—Williamson says that the death rate from diabetes mellitus in England and Wales is steadily increasing. He discusses the etiology in reference to age, heredity, race, occupation and social position, sexual relations, diet, the use of alcohol and sweet beverages, psychic conditions, physical overwork and overstrain, pregnancy and external injuries, and also its association with other diseases, obesity, gout, acromegaly, and occasionally the climacteric. "But," he says, "whatever may be the pathogenesis of diabetes, the previous history of clinical patients shows that certain antecedents of the disease are common, *i. e.*: (1) Mental anxiety, shock, overstrain; (2) excess of alcoholic beverages; (3) excess of sweet foods, or beverages containing sugar." Also, in many cases—at least 22 per cent.—there is a family history of the disease. Preventive treatment should be instituted when the onset of diabetes may be considered likely from family history, in Jews suffering from overstrain, obesity, excessive food and little exercise, in women with grape sugar in the urine during pregnancy, in all cases of gout, acromegaly and obesity, in men of 40 or 50 who have suffered prolonged mental strain, in very stout women after the climacteric, after an acute illness or examination for life-insurance when temporary glycosuria has been found, and in all cases of slight permanent glycosuria. In all cases the following precautions should be taken: All articles of diet or drinks containing sugar should be avoided. A moderate amount of starchy food is permitted unless glycosuria has been detected. Sugar is more powerful than starch in producing glycosuria. Excess of food should be avoided. Sufficient out-door exercise is necessary. Dyspepsia and constipation should be treated. If possible an occupation should be chosen that reduces mental worry, anxiety, etc., to a minimum.

39. **Chronic Infantile Paralysis.**—Hernaman-Johnson records two cases of chronic infantile palsy, both treated and diagnosed as tuberculous disease of the hip. Both these conditions are amenable to treatment, but of a diametrically opposite nature, in the one case, stimulation and exercise being called for, in the other physiologic rest. The importance of diagnosis is therefore insisted on, and after a discussion of the case the author sums up the diagnosis as follows: In cases of general weakness of a lower limb in children, with symptoms referred chiefly to the hip, do not be over-ready to diagnose morbus coxæ. If possible, conduct the physical examination before hearing anything of the history, either personal or family. If aware of the existence of tuberculous diathesis, be on your guard.

1. *Pain.*—Examine for this by (a) striking the heel in a direction perpendicular to the leg, the patient lying down and holding the limb out stiffly; (b) jamming together the trochanters with both hands; (c) likewise the iliac crests. Next, manipulate the ankle, knee, and hip joints in all directions, at the same time noting any limitation of movement. Apply Thomas' test to detect permanent flexion of the thigh. Do not ask the child if these things hurt, but watch for wincing or expression of pain in the face. If all these tests are negative, the presumption against the existence of morbus coxæ is very strong indeed.

2. *Paralysis.*—Find out how far voluntary movement can be carried out. Especially look for weakness of the extensors of the foot. A tendency to foot-drop without contractures is almost diagnostic of infantile palsy. If retraction of the calf muscles exists, the evidence is of less value. The application of the faradic current to the muscles is of use in investigating a case; a feeble or absent response indicates nerve lesion.

3. *Tumor.*—Remember that when the glutei are markedly flattened, the trochanter may stick out, giving the appearance of a tumor. Careful comparison with the sound side will reveal the fact that the enlargement is apparent only. In case of doubt, a radiograph should be obtained.

4. *Symptoms.*—Not till the physical examination has been completed, should symptoms be inquired into. Pain is generally complained of, but always as the result of exertion. In some cases of infantile palsy, a walk of 100 yards may cause aching of the limb for hours, often spoiling a night's sleep. The pain, however, is not acute, being always described as of an "aching" or "dragging" character; it is not brought on by an accidental knock or jar; and never takes the form of "night starts." The general condition in cases of infantile paralysis is often as bad as, or worse than, in tuberculous hip: poor nutrition, bad appetite, and digestive troubles being the rule.

5. *History.*—Parents nearly always attribute these afflictions of the lower limbs to a fall in infancy or early childhood. Such statements are generally to be regarded as valueless, except in so fas as they help to fix the date when the disease was first noticed. A history of extreme chronicity, from five to ten years without much alteration in the condition, is strongly against the existence of tuberculous disease.

British Journal of Children's Diseases, London

April

41 Medical Inspection of Elementary School Children. G. Carpenter.
42 Origin of the Feeble-Minded (concluded). W. A. Potts.

Australasian Medical Gazette, Sydney

March

43 Roentgenography in Urinary Surgery. L. H. Harris.
44 Whole-Time Medical Officers of Health. J. A. Thompson.
45 The Presystolic Murmur. J. M. Gill.
46 Plea for Mercurial Inunction in Syphilis. J. L. Gibson.
47 Epidemic of Pneumonia. R. E. Shuter.
48 Surgi T. Fiaschi.
49 The sthesia. A. J. Turner.
50 Varic
51 Congenital Malformation of the Esophagus. J. A. Cameron and G. S. Lightoller.
52 Endothelioma of the Neck. C. MacLaurin.

Annales de l'Institut Pasteur, Paris

March, XXIII, No. 3, pp. 177-271

53 Amebic Dysentery in Cochin China. (Recherches sur la dysentérie amibienne en Cochinchine.) F. Noc.
54 *Physiologic Study of Papain.* E. Pozerski.
55 Treatment of Trypanosomiasis in Horses by Orpiment, alone or with Atoxyl. A. Thiroux and L. Teppaz.
56 Trachoma in Algiers. (Histoire pendant un an, du trachome dans une agglomération algérienne.) E. Sergent.
57 Presence of an Intestinal Emulsin in the Higher Animals. P. Thomas and A. Frouin.

Archives Générales de Chirurgie, Paris

March, III, No. 3, pp. 221-330

58 *Postoperative Embolism in the Lung. C. Lenormant.
59 *Perineal Prostatectomy by the Ischio-bulbar Route. Soubeyran.

58. **Postoperative Embolism in the Lung.**—Lenormant has observed four cases of lung complications after laparotomies or removal of the breast, a proportion of 0.5 per cent. of 792 operations during the last four years. He ascribes the thrombosis to infection, not necessarily occurring during the operation but possibly traceable to the paralysis of some part of the digestive tract with absorption of septic matter. He reviews the literature on the subject, and states that in 233 cases on record the embolism proved fatal in 106. The only treatment is by prevention, and he advocates digitalis or other suitable drug when, before the operation, the pulse is small and the heart action weak and irregular, and also in case of large abdominal tumors. In the same way injections of salt solution are indispensable, he believes, before attempting any operation when the patient is anemic from profuse hemorrhage or the arterial tension is much reduced, and the anesthesia should be as brief as possible. Ranzi advises preliminary scopolamin-morphin to reduce the amount of chloroform; Witzel prefers ether, as it is less depressing for the heart. In operating, the veins must be managed care-

one or two weeks in the majority of his cases. When the pains were severe during the first two or three days, as in a few cases, he inserted a suppository of morphin or codein with belladonna, but a dressing of aluminum acetate was generally sufficient and even this was not necessary in some cases. In others slight cauterization with silver nitrate or dusting with calomel or bismuth may have hastened the healing of the ulcerations.

74. Summarized in The Journal, July 4, 1908, p. 73.

76. **Diagnosis of Gastric Cancer from Cytologic Examination of the Rinsing Water.**—Marini gives an illustrated description of the characteristics of the tumor cells found in the rinsing water in 37 cases of gastric cancer, comparing them with the epithelial cells found in the stomach content in health. He affirms that search for tumor cells in the water after lavage of the stomach is the easiest, simplest and most reliable diagnostic measure at our command and may reveal the existence of carcinoma even in its incipiency. His illustrations show that the structure of the cells may indicate even the shape of the carcinoma, its location and other features. He is convinced of the diagnostic importance of even isolated tumor cells in the rinsing water, and relates the details of several cases in which the course of the affection later confirmed the diagnosis based on this finding.

Berliner klinische Wochenschrift

April 5, XLVI, No. 14, pp. 625-668

78 *Suture of Lung in Gunshot Wounds. (Lungennaht bei Schussverletzungen.) M. Borchardt.
79 Differentiation of Tubercle Bacilli by Antiformin. (Die Brauchbarkeit des Antiformins zum Nachweis von Tuberkelbacillen.) O. Seemann.
80 Chemical and Microscopic Study of Fatty Degeneration of the Kidneys. (Nierenverfettung.) E. Kuznitzky.
81 *Relations between the Hypophysis and the Ovaries. (Beziehungen zwischen Hypophysis und Eierstücken.) L. Thumim.
82 Technic and Indications for Operative Treatment of Retroflexion, especially by Vaginal Fixation of the Uterus. J. Sonnenfeld.
83 *Streptococci in Children's Diseases and Serotherapy. J. Ritter.
84 *Pyelocystitis in Children. (Die Pyelocystitis des Kindesalters.) F. Göppert.
85 *Electric Cautery in Treatment of Hypertrophy of the Prostate under "Irrigation Ur [illegible] (Galvanokaustische Eingriffe in die Urethra [illegible]
86 *Local Electric Light Ba[illegible] Universalapparat zur Licht- und Wärmbestrahlung.) Buttersack.

April 12, No. 15, pp. 669-716

87 Placental Origin of Eclampsia. R. Freund.
88 Catatonic Psychosis as Manifestation of Sinus Thrombosis. G. Stertz.
89 *Antistreptococcus Serum. H. Aronson.
90 Immunity to Syphilis and Sy[illegible] of Testicles in Monkeys. (Zur Frage der [illegible] und der syphilitischen [illegible] Buschke and W. Fischer.
91 Mineral Water and Uric Acid. (Das Karlsbader Wasser und die Harnsäure.) A. Rosenthal.
92 Eye Diseases and Gynecology. (Augenkrankheiten in ihren Beziehungen zur Gynäkologie.) E. Runge.

78. **Suture of the Lung.**—Borchardt has recently operated in two cases of injury of the lung, and this experience in addition to study of the literature has convinced him that it is not necessary to attempt to suture the lung except when there is primary excessive acute or subacute hemorrhage, extensive pneumothorax or cellular emphysema or when the walls are much infected with a wide gaping wound. Except in these rare conditions it is wiser not to expose the patients to the dangers of an unnecessary operation.

81. **Relations Between Hypophysis and Ovaries.**—Thumim has made a special study of the relations between the ductless glands, and recently reported a case in which a tumor in the suprarenals was accompanied by atrophy of the ovaries and male characteristics in respect to growth of hair, bass voice, etc. In a case here described in detail, the loss of ovarian functioning coincided with the development of a tumor of the hypophysis and development of acromegaly. The patient had passed through a normal puberty, had married at 21 and soon after this the menses became irregular and finally ceased altogether, probably as the tumor in the hypophysis began to develop. The first sign of trouble was hoarseness; in a few months vision grew defective and Roentgen examination confirmed the assumption of a tumor in the hypophysis. The symptoms continued a progressive course under hypophysis tablets, but after a few months they seemed to be arrested and the patient has remained in comparatively fair condition during the few months since, and refuses to allow any operation. It seems evident, Thumim thinks, that ovarian, rather than hypophysis treatment is indicated in this and similar cases, and the assumption seems plausible that disturbances resulting from excessive ovarian functioning, such as excessive menstrual hemorrhage, nymphomania and other psychoses, might be combated by hypophysis tablets. The pineal gland must also be considered in connection with the relation between the glands with an internal secretion. Not merely for organotherapy, but also for physiology and pathology these interrelations will surely prove a fruitful field for research.

83. **Streptococci in Children's Diseases.**—Ritter found streptococci on the tonsils almost constantly in 300 cases of tonsillitis, but only in 33 out of 117 cases of acute articular rheumatism. Streptococci were also present in the majority of cases of pemphigus and impetigo and in 23 of 100 cases of aphthous ulcerative stomatitis. In diphtheria in particular the presence of streptococci is the criterion of the imminence of the danger. In 100 cases of scarlet fever streptococci were found in only a few and none in the rapidly fatal ones. In all these affections, however, the streptococcal invasion was always secondary; in erysipelas alone the streptococci seem to be the causal primary germs, and they also seem to be the first on the spot in recent suppurations and acute infections of wounds, although they may be accompanied by staphylococci. The streptococci in all these affections are practically identical and their varying virulence depends on the soil. Examination of 16 patients with frequently recurring erysipelas, showing a peculiar affinity for this streptococcal affection, disclosed an abnormally small proportion of white corpuscles—below 4,000 and 5,000. This suggests that the blood of these patients is incapable of interposing an effectual resistance to the invasion of the streptococci. Antistreptococcus serum was injected in 22 severe cases of erysipelas, with good results. The tabulated findings show that in every case without exception the process was promptly arrested and subsided, in marked contrast to 87 other cases in which the serotherapy was not applied. In 19 cases of scarlet fever with streptococcus invasion 10 of the patients recovered under serotherapy. In 14 cases of diphtheria of the severest type the diphtheria antitoxin was supplemented by antistreptococcus serum and 6 of the patients recovered, all of whom he is confident would have been doomed without the serum.

84. **Pyelocystitis in Children.**—Göppert remarks that from 1.1 to 1.2 per cent. of the children brought to his office are suffering from pyelocystitis; he has notes of 130 such cases and here describes a few clinical types. The outcome depends on early appropriate treatment; fully 20 per cent. of his little patients succumbed, as medical aid was not sought until the affection was far advanced. Without treatment, all the severer cases in children under eighteen months inevitably terminate fatally, either during the acute attack or from chronic debility. A complete cure under suitable treatment may be anticipated, even when there are evidences that restitution is not complete for a year or two. Chronic trouble may persist and explain certain cases of menstruation pyelitis and pregnancy pyelitis in later years. Even in the most favorable cases a recurrence in the first two months may be expected in about 20 per cent. Subjective improvement may be counted on in two or three days under appropriate treatment and complete recovery in from ten to thirty days in infants, and more rapidly still in older children. The aim in treatment is to rinse out the kidneys by copious intake of fluids; infants require this even more than adults as they suffer so readily from lack of water. In case the symptoms are severe he advises pouring into the stomach, through a catheter introduced through the nose, from 150 to 200 gm. Carlsbad Mühlbrunnen water at a temperature of 40 or 41 C. (104 F.). In less serious cases he injects into the rectum two or three times a day a pint of warm Carlsbad water or lime water diluted to one-half. The transformation of the acid into an alkaline reaction in the urine hastens recovery, unless there is ammoniacal decomposition, in which case the

urine should be rendered acid. He found cranberry juice most effectual for this. His experience has further confirmed the benefit from salol or other drugs to attenuate the virulence of the bacteria. During the acute phase he gives from 0.05 to 0.2 gm. salol five or eight times a day to children from two months to three years old. Improvement is generally manifest in thirty-eight hours, but a copious supply of water must be kept up or further trouble is inevitable.

85. **Irrigation Endoscopy and Galvano-Cauterization of the Urethra.**—Goldschmidt's method of direct visual inspection when the urethra is distended with water has been described in these columns. He here gives eight views of the enlarged prostate seen by this means, the findings explaining the mechanism of retention of urine and the easiest way of restoring permeability. A needle or small knife can be inserted in the protuberant lobe of the prostate and the resulting shriveling opens the passage for the urine. Not the depth of the incision but its being carried throughout the entire length of the lobe is the main factor in the success. This method of treating enlarged prostate is indicated only in the early stages and does not attempt to compete with prostatectomy.

86. **Electric Apparatus for Local Application of Heat.**—The apparatus is shaped like a drum but opens sideways into two parts, each half containing three incandescent electric lights. The opened drum fits over the shoulder, leg or any part desired and the heat can be graduated at will.

89. **Antistreptococcus Serum.**—Aronson has been experimenting on monkeys, mice and other animals with antistreptococcus serum. Among the results obtained he mentions success in saving monkeys by means of immune horse serum from the effects of streptococcus peritonitis, otherwise fatal in eighteen hours at latest. He urges the authorities to make arrangements for further studies of this kind in the tropics where the anthropoid apes can be procured at less expense for research on serum prophylaxis and treatment of tuberculosis, leprosy, syphilis and cancer, besides the streptococcus affections.

Deutsche medizinische Wochenschrift, Berlin

April 15, XXXV, No. 15, pp. 657-696

93 *Gout and Rheumatism. W. His.
94 *Therapeutic Action of Fibrin. (Wirkungen des Fibrins.) S. Bergel.
95 *Serodiagnosis in Postconceptional Syphilis. (Postkonzeptionelle Syphilis und Wassermannsche Reaktion.) Wechselmann.
96 Simplified Procedure for Serodiagnosis of Syphilis. (Vereinfachtes Verfahren der Serumdiagnose bei Syphilis.) N. A. Tschernogubow.
97 *Cerebrospinal Fluid with Postdiphtheric Paralysis. (Zur Klinik postdiphtherischer Pseudotabes.) L. Roemheld.
98 Treatment of Laryngeal Tuberculosis with Marmorek's Antituberculosis Serum. B. Jereslaw.
99 *Superheated Air in Treatment of Pleuritic Effusion. (Behandlung des pleuritischen Exsudates.) L. Fellner.

93. **Gout and Rheumatism.**—His emphasizes the frequency of groups of symptoms in gout which certainly have no connection with uric acid, mentioning among them dyspepsia, skin diseases, myalgia and neuralgia, arteriosclerosis and granular atrophy of the kidney. These and other phenomena observed suggest that the disturbance in the purin metabolism is not the true essence of gout but is merely one symptom of a more general disturbance. A number of cases encountered in the last few months confirm his idea that in rheumatism, aside from all the cases with known or probable etiology, such as trauma, inflammation, acute rheumatism and infections, there are a large number of cases in which the arthritis must be regarded as the manifestation of some general cause not localized in the joints. This applies particularly to Heberden's nodes, whose connection with gout and diabetes has long been known, although they may develop without either. This characteristic form of arthritis is so unmistakably independent of external causes that some endogenous injury must be accepted for all cases. Some typical examples are related of the many different ways in which chronic arthritis may be connected with an endogenous or familial predisposition to disease; they also demonstrate its close connection with gout. The disturbance in the purin metabolism is peculiar to gout and has nothing to do with chronic arthritis. It is important to differentiate the two, and Roentgen examination may aid, especially when the joints are deformed; gouty tophi cast no shadow. In dubious cases the criterion is the elimination of purin or examination of the blood for uric acid after four or five days of purin-free food. This differentiation is important on the practical grounds that severe chronic arthritis induces a tendency to cachexia and phthisis. It is purposeless and harmful to restrict such patients to a purin-free diet. Restriction to a milk-vegetable diet is imperative only in case of certain gout, or when the arthritis develops with other signs of an inherited taint. The gouty diathesis is liable to manifest itself in some other form than defective uric acid metabolism, while certain non-gouty forms of chronic arthritis may develop on a predisposing diathesis although the purin metabolism may not be disturbed.

94. **The Therapeutic Action of Fibrin.**—In this communication from Bier's clinic Bergel relates experiments which show that fibrin plays in the body the part of a protecting and healing substance. It possesses leucotactic, hyperemic and fermentative properties while stimulating the production of granulations and connective tissue and checking the growth of bacteria. He says that it is the fibrin which stimulates wounds to heal, thrombi to become organized, transplanted tissue to heal into its new bed, and callus to form after a fracture. Fibrin supplied from without displays all these properties as in the natural processes, and hence he advises the local application of a sterile, durable, pulverized fibrin as a physiologic aid to promote the rational healing of wounds.

95. **Serodiagnosis of Postconceptional Syphilis.**—Wechselmann affirms as the conclusion of his research that the newborn require antisyphilitic treatment when a positive Wassermann reaction is obtained and that, in case of negative findings, the test should be repeated now and then. If the reaction gives the same response in both mother and child, she can be allowed to nurse it, while a negative reaction compels repeated clinical and serodiagnostic control. A child giving a negative response should not be nursed by the mother giving a positive response. He is convinced that syphilis may exist for years exclusively in the interior of the body without the slightest signs or symptoms to reveal its presence. This is particularly liable to occur in women infected by their husbands in a late phase of syphilis, the virus probably being much attenuated. The complement-fixation test is the only means at our disposal that allows us insight into these occult cases.

97. **Cerebrospinal Fluid in Postdiphtheritic Paralysis.**—Roemheld reports a case in which diphtheria in a merchant of 30 was followed by paralysis involving the muscles of accommodation, the palate and the legs. The cerebrospinal fluid contained an abnormal proportion of albumin which gradually subsided as the patient improved under treatment. In another case in a child the paralysis had subsided but the patient became imbecile; the proportion of albumin in the fluid at 18 was exceptionally large. These findings suggest that prolonged postdiphtheritic paralysis may be the result of changes in the central nervous system as well as of a peripheral neuritis.

99. **Treatment of Pleuritic Effusion.**—Fellner applied superheated air to one-half of the thorax in the effort to induce absorption of an effusion which had for months resisted all other measures. The heat was at first 80 and 100 C. (176 and 212 F.), increasing later to 120 and 140 (248 and 284 F.). The sittings were at first 15 and later 30 minutes long, given every second day at first, then for 2, 3, and 4 days at a time. Prompt benefit followed; after 35 applications all signs of inflammation had vanished and the patient felt better than for years.

Medizinische Klinik, Berlin

April 11, V, No. 15, pp. 529-566

100 *Action on Circulation of Various Hydrotherapeutic Measures. (Ueber die Kreislaufwirkung kalter und warmer Wasserapplikationen sowie verschiedener Medizinalbäder.) O. Müller.
101 *Tuberculosis of the Kidneys. (Nierentuberkulose.) V. Blum.
102 *Further Experience with Scopolamin in Obstetrics. (Weitere 600 Geburten im Skopolamindämmerschlaf.) J. A. Beruti. Commenced in No. 14.
103 Functional Diagnosis of the Heart. (Zur funktionellen Herzdiagnostik.) E. Herzfeld.

104 Strengthening Action of Scopolamin on Morphin, and Means to Combat Morphinism. (Verstärkende Wirkung des Morphiums durch Skopolamin nebst einem Vorschlag zur Bekämpfung des Morphinismus.) A. Friedländer.
105 Treatment of Ankylosis with the Bier and Tyrnauer Apparatus. (Behandlung von Gelenksteifigkeiten mittels Bierscher und Tyrnauerscher Apparate.) Immelmann.
106 *Simple Method of Treating Dislocation of the Shoulder. (Einfache Behandlungsmethode der Schultergelenksluxationen.) G. Schichhold.
107 Questions of Climate in Balneology. (Klimatische Fragen in der Balneologie.) Dove.

100. **Effects on Circulation of Hydrotherapy.**—Müller has studied the effects on the heart action of various hydrotherapeutic measures, both in health and disease. His conclusions show the physiologic bases for the action of hot, cold and carbonated baths. With failing compensation the blood pressure drops in response to cool carbonated baths, which thus do more harm than good. When the compensation is good the response is similar to that in health, and great benefit may be derived from these measures along the lines of this physiologic reaction.

101. **Tuberculosis of the Kidneys.**—Blum reviews the experiences at the Vienna policlinic with tuberculosis of the kidneys, his conclusions all being in favor of radical surgical intervention. Even in the early cases there is absolutely no justification for internal medicinal, climatic, specific or physical therapy. They are only a waste of time, he asserts, and reduce the chances for a successful operation. The possibility of spontaneous recovery is so slight that it should not be taken into account at all.

102. **Scopolamin-Morphin in Obstetrics.**—This communication adds 600 more to the 1,000 cases of delivery in the scopolamin "twilight sleep" previously published from Krönig's clinic at Freiburg. The conclusions are about the same as those of Gauss in the former series. Measurement of the amount of blood lost in 497 cases showed an average of 382 gm., fully 95.16 per cent. of 571 deliveries being accompanied by merely moderate loss of blood. There was no morbidity in 536 cases, while in 17 there was some febrile disturbance of puerperal origin in 6, afebrile in 1, and non-puerperal in the 10 others, the total morbidity being 4.68 per cent. Of the 609 children, 7, that is 1.14 per cent., were still-born, while 10 were non-viable. About 5.14 per cent. of the 609 children (31) were in asphyxia and 9 of these children died within three days. In 2 cases death occurred from aspiration of amniotic fluid. Three children died between the third and ninth day, but 581 of the 588 children born alive left the clinic in good condition, that is, 98.8 per cent.

106. **Simple Method of Reducing Dislocation of the Shoulder.**—The forearm is held between the physician's thighs as he stands in front of the seated patient. The arm is held firm by the adductor muscles and strong pressure can thus be brought to bear as the physician pulls back while holding the shoulder with his hands. The downward pressure thus exerted overcomes the action of the antagonist muscles and stretches the capsule and ligaments until reduction is easily done. Schichhold has applied this method in many cases during the last forty years and with satisfactory results. The chief advantage of this technic is that he can regulate, himself, the force of the traction exerted to the exact amount required for reduction, as he grasps the neck of the humerus with one hand and with the other presses the head into place, both hands being free for the manipulation of the joint. The only assistance required is some one to hold the patient firm in the chair, one arm around his neck and the other in the axilla. This technic allows rapid reduction of even old dislocations without anesthesia, assistance or apparatus.

Monatsschrift für Geburtshülfe und Gynäkologie, Berlin

April, XXIX, No. 4, pp. 405-552

108 Volvulus of Sigmoid Flexure in Gynecology and Pregnancy. R. Lampe.
109 Polyp of the Vaginal Portion of the Uterus. (Ueber Polypen der Portio vaginalis.) K. Pronai.
110 *Intraperitoneal Shortening of the Round Ligaments. (Zur intraperitonealen Verkürzung der Ligamenta rotunda.) M. Stolz.
111 *Operative Treatment of Complicated Retroflexion of the Uterus. (Zur operativen Behandlung der komplizierten Retroflexio uteri fixata unter Mitteilung eines Verfahrens mittelst ankerförmiger Schnittführung.) H. Palm.
112 *Alexander-Adams Operation. W. Lesse.
113 *Permanent Results of Conservative Treatment of Inflammation of the Ovaries and Fallopian Tubes. (Dauererfolge der konservativen Behandlung chronisch entzündeter Gebärmutteranhänge.) L. Prochownick.
114 *Treatment of Rupture of Uterus. (Zur Behandlung der Uterusruptur in Anschluss an sechs eigene Fälle.) G. Petren. Commenced in No. 3.

110. **Operative Treatment of Retroflexion of the Uterus.**—Stolz gives an illustrated description of his intraperitoneal method of shortening the round ligaments and compares it with similar technics that have been published. He has applied it in seven cases in the clinic with good results. Its principal feature is the intentional anteflexion and elevation of the uterus by suture of the round ligaments slanting across the lower wall of the uterus. Movable backward displacement of the uterus was the indication for the operation in most of his cases.

111. **"Anchor Incision" for Uterine Retrodisplacement.**—Palm applies the term "anchor incision" to a curving transverse incision, with perpendicular median incision, for the second step of the Alexander operation. He has had occasion to operate by this technic in seven cases of complicated retroflexion with extensive and solid adhesions and other lesions requiring ovariectomy, myomectomy or other comparatively serious operation. Four of the patients have borne children since without disturbance, twins in one case in which the patient had had bilateral femoral hernia, prolapse of the vagina and inflamed adnexa on one side with two myomas. He adds that the idea is the same as that of Kreutzmann, published six months later than the description of Palm's first operation by this technic.

112. **The Alexander-Adams Operation.**—Lesse has applied this technic in 175 cases and expresses satisfaction with it, notwithstanding that there was recurrence in 2.5 per cent. of 83 women whose later history is known. Thirty-five of the women have passed through normal pregnancy since, including 7 who had the operation done to cure sterility. In 3 other cases of this kind conception has not occurred to date.

113. **Remote Results of Conservative Treatment of Inflammation of the Adnexa.**—Prochownick discusses the limitations for conservative treatment, on the basis of 160 patients thus treated between 1892 and 1905, and recently re-examined. When recurrence took place it was during the first three years in 95 per cent. of the cases and in the majority at the beginning of the second year. It seems evident, therefore, that three years is long enough to estimate the ultimate outcome of treatment; 55 per cent. of the women were cured by a single course and 15 per cent. by a second course, of from four to six weeks. The patients at first remain in bed, with local ice applications, changing to moist heat, then to superheated air or local electric light baths, with hot vaginal douches, sitz and full baths, the mercury colpeurynter for from two and a half to three hours every day, and a hard rubber stretching cylinder introduced at night to act on the indurations and cicatricial tissue in the pelvic connective tissue; general massage is begun as early as possible, and the patient is allowed gradually to get up. At four or five day intervals ichthyol glycerin or tannin glycerin is applied locally on gauze, never stronger than 5 per cent., and all other measures are omitted on the days of the local treatment and all measures during the menses. At the slightest rise in temperature—taken four times a day—the patient must stay in bed. Abscesses are opened and drained, into the vagina if possible. In 48 of the 160 cases the conservative measures proved ineffectual and surgical intervention was required. The improvement in the subjective symptoms under complete repose was in marked contrast in these 48 women to the persistence of the objective findings; the prognosis was particularly grave in the cases in which there was not even subjective improvement and the affection recurred more severe after the first course of conservative treatment. When the first course failed to show marked improvement, the second and third courses merely postponed the inevitable surgical intervention and rendered the conditions less favorable for it. He regards it as the greatest progress in gynecology that more than half of all the chronic inflammatory affections of the adnexa can be permanently cured with patience and simple measures.

but, on the other hand, it is important to recognize early the cases for which conservative measures are not adapted so that surgical intervention can be promptly applied.

114. **Rupture of the Uterus.**—In addition to the 6 personal cases described, Petren tabulates the details of 754 cases of rupture of the uterus which he has been able to find in the literature of the last thirty years. Of these 754 women, only 238 survived, including 140 out of 501 treated by conservative measures and 82 out of 174 by a laparotomy. The statistics to date are thus in favor of laparotomy in treating rupture of the uterus, the organ being removed as a rule, and always if there are signs of infection. The general practitioner hesitating to undertake such an extensive operation had better summon the specialist to the house or have the patient taken to the hospital, where this operation is no more dangerous than operation for ruptured extrauterine pregnancy. Laparotomy was done in 10 of the cases in the statistics after the patient had thus been sent to the hospital, and with successful outcome in 6.

Münchener medizinische Wochenschrift

April 6, LVI, No. 14, pp. 697-744

115 Technic to Insure Pene[illegible] Rays. (Zur Tiefenbestrahlung mit
116 *Effect of Specific Treatn[illegible]n Syphilis. (Wie wirkt die spezifische Therapie auf die Wassermann-A. Neisser-Brucksche Reaktion ein?) R. Pürckhauer.
117 Antitrypsin Content of Blood Serum during Pregnancy. (Der Antitrypsingehalt des mütterlichen Blutserums während der Schwangerschaft.) E. Gräfenberg.
118 Auscultation Method of Determining the Blood Pressure. (Auskultatorische Blutdruckmessung.) P. Schrumpf and B. Zabel.
119 * Diagnosis and Treatment of Pancreatitis. Dreesmann.
120 Graded Light for Medical Purposes. (Wie man ein wissenschaftlich bestimmbares Licht darstellen und zu ärztlichen Zwecken verwenden kann.) J. Pick.
121 Tar Baths. (Einfaches Verfahren zur Herstellung von Teerbädern.) K. Taege.
122 Scarlet Fever and the Serodiagnosis of Syphilis. (Scharlach und Wassermannsche Syphilisreaktion.) W. Holzmann.
123 *Etiology of Postoperative Pulmonary Complications. A. v. Lichtenberg.
124 Atrophy of Optic Nerve under Arsacetin Treatment. (Fall von Sehnervenerkrankung nach Arsazetininjektionen.) Ruete.
125 Spirochetes in Gonorrheal and other Lesions during Latent Syphilis. (Verdeckte Syphilisstellen.) F. Wanner.

116. **Influence of Specific Treatment on Serodiagnosis of Syphilis.**—In this communication from Neisser's clinic at Breslau the findings of the complement-fixation test as applied in 5,200 cases of syphilis are tabulated and compared. The findings were positive in inverse proportion to the number of intermittent courses of treatment that had been applied in the individual cases. This connection is seen most strikingly in the old latent cases; with a single course of treatment the positive and negative findings were each found in 50 per cent. of the cases while the findings were negative in 90 per cent. of the cases in which there had been eight or more courses of treatment. The more energetic the treatment the smaller the proportion of positive responses. This was observed even in cerebrospinal syphilis, negative results being obtained in 5 out of the 11 cases in which thorough treatment had been given. A single course of treatment does not seem to have much effect on the findings with the test, but the general impression is all in favor of the efficacy of thorough treatment in the first months and years after infection. After the disease has become once firmly lodged in the system the chances for complete cure seem to be much less. The drugs administered may not make their effect felt in the complement test until months afterward. In time we may be able to distinguish two groups of syphilitics, those with positive findings at first and then a constantly negative response later, showing that the disease has been actually stamped out, and those who respond positively all the time or intermittently, showing a peculiarly refractory form of the disease and the necessity for continued treatment. Until we have learned to classify patients thus beyond possibility of mistake, it is wisest to treat them as energetically and as early as possible after the diagnosis is once established, and to repeat the courses as energetically as possible during the first years after infection, regardless of the manifestation of symptoms or their absence.

119. **Pancreatitis.**—Dreesmann has observed six cases of acute and three of chronic pancreatitis confirmed by operation during the last year, and discusses the diagnosis and the imperative surgical treatment. He is convinced that many cases of supposed recurrence of gallstone trouble are in fact merely cases of pancreatitis. The pain is generally referred to the stomach region and is severe and persisting, usually spreading along the left side and up or down or sometimes localized in the region of the cecum; in one case it exactly simulated sciatica. The pain increases during digestion and movements, and there is tenderness in the stomach region or over the gall bladder and sometimes in the lumbar region. Syncope, collapse and cramps may be the first symptoms or large amounts of bile may be vomited. Fecal vomiting is rare, but the expression is characteristic, differing from the facies hippocratica as the complexion is grayer, possibly from loss or destruction of blood. In the 118 operations on record 8 patients died of the 40 treated by tamponing of the pancreas, and 53 after other operative measures, a total mortality of 55 per cent.

123. **Etiology of Postoperative Complications in Lungs.**—Lichtenberg reports two cases of croupous pneumonia occurring after herniotomy, confirming his conception as to the origin of this complication in an infectious embolism.

Virchows Archiv, Berlin

April, CXCVI, No. 1, pp. 1-192

126 Kupffer's Stellate Cells in the Liver. (Zur Morphologie, Biologie und Pathologie der Kupfferschen Sternzellen, besonders der menschlichen Leber.) V. Schilling.
127 Changes in the Suprarenal Medulla after Nephrotomy and Nephrectomy. (Ueber Veränderungen des Nebennierenmarks nach Nephro-und Nephrektomien.) T. Nakahara.
128 Cancer in Male Bladder Resembling Chorioepithelioma. (Chorionepitheliomähnlicher Harnblasenkrebs mit gleichartigen Metastasen bei einem Manne.) F. Venulet.
129 Tumor from Filaria Volvulus. (Histologische Untersuchungen einer durch Filaria volvulus erzeugten subkutanen W[illegible] Hoffmann and L. Halberstadter.
130 Caus[illegible]om Intravenous Injection of Alien Bl[illegible] Ursache des plötzlichen Todes bei intravenöser Injektion artfremder Blutkörper.) A. F. Coca.
131 *Enlarged Thyroid in Domestic Animals. (Ueber Vergrösserung der Schilddrüse bei Haustieren.) P. N. Woudenberg.
132 Malformations of the Heart. (Herzmissbildungen.) O. Wenner.

131. **Enlarged Thyroid in Domestic Animals.**—Woudenberg gives an illustrated description of adenomatous struma found in calves and pigs, horses, dogs and a goat and cat, with colloid goiters from pigs and cancer of the thyroid in horses and dogs, with a sarcoma in the thyroid of an old dog.

Wiener klinische Wochenschrift, Vienna

April 8, XXII, No. 14, pp. 477-514

133 Extraperitoneal Cesarean Section. (Der extraperitoneale Kaiserschnitt.) W. Latzko.
134 Importance of Intestinal Tract in Origin of Anthracosis of Lungs and Abdomen. (Welche Bedeutung kann dem Darmtraktus bei Entstehung der Lungen und Bauchorganeanthrakose zugeschrieben werden?) A. Maciesza.
135 Two Unusual Cases of Acute Leukemia. A. Herz.
136 Portable Apparatus for Ozone Purification of Water. (Ueber einen tragbaren Apparat zur Ozonierung von Wasser.) E. Wiener.

Zentralblatt für Chirurgie, Leipsic

April 3, XXXVI, No. 14, pp. 481-520

137 *Restricted Localized Action of Toxic Drug. (Experimentelles zur Einführung von Novokain in abgeschnürte Körperteile.) N. N. Petrow.

April 10, No. 15, pp. 521-552

138 *Access through the Throat to the Sphenoidal Sinus and the Sphenoid Segment of the Base of the Brain. (Freilegung der Keilbeinhöhle und des sphenoidalen Abschnittes der Hirnbasis vom Rachen aus.) L. Löwe.

137. **Restricted Localized Action of Drug.**—Petrow reports extensive research on rabbits in which a drug was injected after the part of the body involved had been shut off by a constricting band from the rest of the circulation. The mode of diffusion of the drug was instructively studied on the rabbit ear injected in the marginal vein with a weak solution of a stain which could be seen diffusing through the tissues as the ear was held up to the light. The tint grew less intense in the vein in a minute or two and by the fifteenth to the twentieth minute the stain had diffused entirely through the surrounding tissue. This interval of twenty minutes suffices

for diffusion of the injected drug and nothing is gained by waiting longer. A stronger solution is no more toxic than a weaker concentration. It is possible that the stronger solution passes more completely through the vessel walls and enters into a more stable combination with the tissues so that it is not yielded up to the circulation so readily as the weaker solutions. Addition of adrenalin did not seem to reduce materially the toxic action of the drug injected, but the symptoms of intoxication were apparently a trifle milder than without the adrenalin.

138. **Access to Base of Brain Through the Nasopharynx.**—Löwe apologizes for adding another to the twenty-one methods on record for exposing the base of the brain, but he justifies his proposed technic by stating that it is much simpler than any of the others; only local anesthesia is required for it, and no incision is made in the face, while the nose is left intact. All that is necessary to have ample access to the optic chiasma, the hypophysis and the anterior pons region is to open up the sphenoidal sinus and this is easily done through the roof of the nasopharynx, pushing mucosa and periosteum apart, the incision in the median line, and opening a passage through the body of the sphenoid. Before the operation a strip of cambric is passed through each nostril and out through the mouth and tied around the ears, thus holding the soft palate out of the way. The tongue is held down by a strip passed in through the pharyngotomy incision and out through the mouth, the ends tied tight together over the chin. The instruments used have to have rather longer handles than usual and be a little stronger to work at the depth required. He describes the technic in detail and mentions a number of anatomic points useful to bear in mind in operating in this region.

Zentralblatt für Gynäkologie, Leipsic

April 3, XXXIII, No. 14, pp. 473-504

139 Spontaneous Tearing of the Umbilical Cord during Delivery. (Spontane Zerreissungen der Nabelschnur intra partum.) F. Unterberger.

140 Transverse Ir[illegible] Round Ligaments in Retroflexion of [illegible] Kombination des Pfannenstiel'schen [illegible] rkürzung der runden Mutterbänder bei der operativen Behandlung der komplizierten Retroflexio uteri.) R. Werth.

April 10, No. 15, pp. 505-552

141 *Treatment of Placenta Prævia. B. Krönig.

142 Bacteriologic Diagnosis of Puerperal Fever. W. Sigwart.

143 *Local Anesthesia in Dilatations of, and Operations on, the Cervix. (Zur Lokalanästhesie bei der Dilatation des Cervicalkanals und Operationen an der Portio.) O. Henrich.

144 Transmission of Syphilis to the Child, and Latent Syphilis in Women. (Das Problem der Luesübertragung auf das Kind und die latente Lues der Frau im Lichte der modernen Syphilisforchung.) H. Bab.

141. **Treatment of Placenta Prævia.**—Krönig protests against the rose-colored statements of various recent writers that hemorrhage from placenta prævia can be readily controlled by version or the metreurynter. To show the contrary, he summarizes the details of twenty cases of placenta prævia at the Freiburg clinic in which the women were under the most favorable conditions in regard to medical supervision in a clinic, asepsis, etc., from the start. Version arrested the hemorrhage during delivery in every instance without fail, but the metreurynter failed occasionally and can not be relied on. The chief danger in placenta prævia is from the recurrence of hemorrhage an hour or so after expulsion of the child or placenta, and the hemorrhage stops then only when the patient collapses so that the blood pressure drops too low for the blood to flow. The bleeding is from the isthmus, as a rule, which explains the failure of tamponing in these cases and the objection to the metreurynter as it stretches the isthmus still further. Four of the twenty patients bled to death and another succumbed to sepsis, and yet the conditions were exceptionally favorable for all. Those who survived suffered long from severe anemia. The more advanced the pregnancy the greater the tendency to hemorrhage. The conclusions from this series of cases are that the results of treatment of placenta prævia are so disappointing by the present methods that it is incumbent on us to seek for improved methods of treatment. He has been looking over the records of the 34 cases of placenta prævia received at the clinic since 1904, in which the date of the first hemorrhage is mentioned; in every instance a warning hemorrhage had occurred during the last few days or weeks before the childbirth. The physician summoned merely ordered the patients to bed and the hemorrhage stopped with the bed rest. These warning hemorrhages recurred three or more times before labor came on, and the physician would have had ample time to send the patient to the clinic if the warning of these premonitory hemorrhages had been heeded. The obstetrician is able to save the mother with contracted pelvis by perforation during delivery in the home, but with placenta prævia both mother and child succumb in 15 or 20 per cent. of the deliveries in private houses. Even in the clinics the mortality is still from 5 to 8 per cent. at the best.

143. **Local Anesthesia for the Uterine Cervix.**—Henrich reports favorable experiences at Freund's clinic at Strasburg with local injection of a solution of 1 part beta-eucain; 0.6 parts sodium chlorid; 8 parts of a 1 per thousand solution of adrenalin, and water to 100 parts. The fluid is injected at four points, directly into the cervix, using about 1 or 2 c.c. It renders the cervix absolutely insensible, doing away with reflex spasmodic contraction and allowing dilatation and incisions without resistance or pain.

Gazzetta degli Ospedali e delle Cliniche, Milan

March 30, XXX, No. 38, pp. 401-408

145 Deformity of Skull and Atrophy of Optic Nerve. Two Cases. R. Migliaccio.

April 1, No. 39, pp. 409-416

146 New Clinical Tests for Dosage of Pepsin. (Dosamento della pepsina.) E. A. Fubini.

April 8, No. 42, pp. 441-448

147 *Albuminuria in Aseptic Fevers. S. Lavagna.

April 11, No. 43, pp. 449-461

148 *The Central Vein in the Brow as Means of Identification. (La vena centrale frontale. Indice di identificazione personale.) A. Tamassia.

147. **Albuminuria in Aseptic Fever.**—Lavagna's research on rabbits demonstrated that simple hyperpyrexia alone is unable to induce albuminuria. In infectious processes the albuminuria seems to be the result of the toxi-infection acting on the finer structure of the kidney.

148. **Frontal Vein as Means of Identification.**—Professor Tamassia of Padua suggests that the variations of the frontal vein from the median line are peculiarly individual and characteristic and might well be utilized as a means of anthropomorphic identification. The course of the vein is recorded on a diagram like an anchor, a curved line for the bottom of the brow with a dotted median line from the glabella to the center of the curved line.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

The Influence of Sodium Benzoate on the Nutrition and Health of Man. U. S. Department of Agriculture. Report No. 88. Paper. Pp. 784. Washington: Government Printing Office, 1909.

Life's Day. By William Seaman Bainbridge, A.M., M.D. Cloth. Pp. 308. Price, $1.35. New York: Frederick A. Stokes Co.

Writing the Short Story. By J. Berg Esenwein, A.M., Lit.D., Editor of Lippincott's Monthly Magazine. Cloth. Pp. 441. Price, $1.25. New York: Hinds, Noble & Eldredge.

Mendel's Principles of Heredity. By W. Bateson, M.A., F.R.S., V.M.H., Fellow of St. John's College. Cloth. Pp. 396, with illustrations. Price, $3.50. Cambridge: The University Press, 1909.

Fourteenth Report of the Board of Health of the Town of Montclair, New Jersey. 1908. Paper. Pp. 53.

Sixtieth Annual Report of the Central Indiana Hospital for Insane. Indianapolis, Ind., 1908. Paper. Pp. 65.

Annual Report of the Bureau of Health for the Philippine Islands. 1908. Paper. Pp. 182, with illustrations.

Blutungen und Ausfluss aus dem Uterus: ihre Ursachen und Behandlung. Von Hofrat Dr. A. Theilhaber. Paper. Pp. 87, with illustrations. Price, 2.50 marks. München: Verlag von Ernst Reinhardt, 1909.

Die Struktur und die Pathogenese der Gallensteine. Von Dr. med. I. Boysen, in Kolding (Dänemark). Mit einem Vorwort von Prof. Dr. Th. Rovsing, in Kopenhagen. Paper. Pp. 127, with illustrations. Price, 4 marks. Berlin: S. Karger, 1909.

Hemorrhage and Transfusion. By George W. Crile, A.M., M.D., Professor of Clinical Surgery, Western Reserve Medical College. Cloth. Pp. 560, with illustrations. Price, $5.00. New York: D. Appleton & Co., 1909.

Die Behandlung der Geburten bei engen Becken. Von Dr. E. Scipiades, Assistenten der Klinik. Paper. Pp. 246. Price, 7 marks. Berlin: S. Karger, 1909.

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Address

THE RESISTANCE OF THE HUMAN BODY TO CANCER *

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CHICAGO

After many years of careful and painstaking work by the surgeons, during which the radical operative methods have been developed to a high degree of perfection, we are still forced to admit that as yet the results of surgical intervention in cancer are anything but satisfactory. The most skilful operators can claim at the best but about 40 per cent. of recoveries in cancer of the female breast,[1] while in cancer of the cervix of the uterus recovery without subsequent recurrence is an exceptional result of even the most radical pelvic operations. Martin[2] gives 10 to 20 per cent. of such patients free from recurrence after five years. Pylorectomy has but occasional isolated recoveries to its credit and even in the least malignant form, carcinoma of the skin of the face, recurrence follows in about 40 per cent., while with carcinoma of the lip success is even less common,[3] and Butlin[4] reports a three years' cure in but 31.4 per cent. of his operations for cancer of the tongue. Probably we have nearly reached the extent of our possible progress in the direction of operative skill, at least so far as extensiveness of removal of tissue is concerned, and consequently the surgeons feel that the only possible direction for improvement is in early diagnosis. Admittedly there is room for great improvement in this respect, and with the rapid bettering of the conditions of medical education it is to be hoped that soon a larger proportion of practicing physicians will be able to recognize even deeply hidden cancers at least as early as the best trained men now can. But while earlier diagnosis and operation in carcinoma will undoubtedly bring up the percentage of complete cures, yet even under the best of conditions the mortality will still be high. How often, if ever, can a surgeon feel certain after he has removed even the earliest cancer of the uterus or of the breast, that recurrence will not follow? Even with the relatively slow-growing and easily diagnosed carcinomas of the face and lips recurrence frequently follows early and radical operation; while with melanosarcoma of the chorioid or iris, which is frequently diagnosed when extremely minute on account of the early effect on vision, operative removal of the entire eye almost never prevents the development of secondary tumors in other organs, although the primary growth may be smaller than a split pea when the eye is taken out. Therefore, no matter how skilful we may become in diagnosis, and however radical our operative procedures may be, malignant neoplasms will still remain a dreaded and fatal affliction for which some other cure than surgery must be sought. But in the face of the many years of failure in this research, the question forces itself on us, have we any right to expect that a specific cure for cancer ever will be found? Is there any good reason for hoping that a method of curative treatment can ever be devised, or must we be resigned to accept the best possible results of surgery as the only goal towards which we can direct our efforts?

While a few years ago the average pathologist expressed himself as very dubious as to the prospect, at the present time there seems to be growing a belief that the hope of a specific treatment for cancer is not unreasonable; not simply from the standpoint of a general optimism which believes that everything good is possible, but because of certain facts in the biology of tumor growth which afford a substantial basis for believing that malignant tumors are not essentially incurable.

If we wish to find a specific therapy for an infectious disease we have two methods available: Either we may stumble on a cure by purely empiric methods, as was done with malaria and syphilis, or we may study the manner in which the body defends itself against the disease, and endeavor to heighten, supplement, substitute or even to initiate this natural method. Perhaps we may consider as in a class by itself the method of therapeutics that is now being developed in Ehrlich's laboratory, in which by more or less empiric methods a substance is found that has some favorable influence on an infection, and then guided by experimental results this influence is enhanced by addition of various and sundry radicals to the nucleus furnished by the original substance. Likewise in the search for a specific therapy for cancer we have the same three methods available, since we must look on cancer as an infectious disease, whether we believe with some that it is due to invasion by a parasite coming from without, or accept the opinion that seems to be held by the majority of pathologists, namely, that in cancer the parasite is the cancer cell itself, and that no extraneous organism whatever is concerned in the disease.

Empiricism has had its chance for centuries without success, and although anything may happen, yet we can certainly have little reasonable hope for any results from this source. As for the synthetic method of Ehrlich, this is yet too young to hazard prophecies;

* An address before the Academy of Medicine of Toronto, April 6, 1909.

* From the Pathological Laboratory of the University of Chicago.

1. Mumford: Boston Med. and Surg. Jour., 1907, clvii, 638.
2. Martin: Deutsch. med. Wchnschr., 1907, xxxiv, 89.
3. Meller's statistics show 50 per cent. of cancers of the head, neck and face free from recurrence three years after operation. (Ztschr. f. Krebsforsch., 1907, vi, 64.)
4. Butlin: Brit. Med. Jour., Jan. 2, 1909.

results that seem to be of value have been obtained with certain of the trypanosome infections; there is ground for hope that the long-desired substance which will kill bacteria without harming the host may eventually be found by this method, and therefore if cancer is due to extraneous parasites it may come under the influence of parasiticidal substances. This much can be said for these two possible sources of cures.

But at the present time we are inclined to believe that the most logical way to find a specific remedy for an infection is to learn how the body cures itself when natural recovery takes place, and then, if possible, to enhance these natural defenses of the body. Before we can do this in the case of cancer, however, we must first satisfy ourselves as to whether the body has any means of defense against malignant growths; for there is a wide-spread opinion that no such natural defense exists and that spontaneous healing can not or does not take place. My purpose in this paper is to point out the evidence that the human body does have some means of natural defense against cancer, which commonly appears to check all tumors to a certain extent, which sometimes impedes their progress greatly, and which very rarely indeed may entirely overcome the malignant growth and lead to complete healing.

It is through the establishment of these facts that we are entitled to hold a reasonable hope that malignant neoplasms will not necessarily always be incurable; and it is through study of the processes which come into play in this natural defense that we may look for the road to therapeutic progress.

We may start out at once with the assumption that no malignant neoplasm ever succeeds in growing to the extent to which its innate proliferative ability entitles it. Ehrlich has calculated from studies of the rate of growth in experimental mouse cancer that if a single cancer graft started proliferating at the usual rate observed in one of his experimental series, and if every descendant graft was implanted into other mice and the process repeated as fast as the tumor reached a size of 1 c.c., leaving out of consideration all difficulties in the way of space and nourishment, at the end of one year the total production of tumor tissue would form a mass, which, if cubical, would have an edge one thousand billion kilometers long and would require a ray of light 105 years to travel the length of one edge of the cube.[5] Such unlimited proliferation would make short work of a mere man, but it can not occur if for no other reason than that the supply of nourishment is bound to be inadequate, and there is no danger that the fear expressed by a medical humorist will ever be realized, namely, that at this rate of growth of mouse cancer and the rapid multiplication of institutions for cancer research, there will soon be danger that all the available nitrogen will be fixed in the form of experimental tumors on mice. One of the commonest occurrences in malignant growths, especially in carcinoma, is necrosis or less extreme retrogressive changes, due to lack of blood supply, which in the main result either from the pressure of the peripheral parts of the growth shutting off the blood supply to the more central portions, or from the tumor cells growing away from their blood supply until they are insufficiently nourished, just as the surface epithelium of the body normally grows away from its supply until the surface cells die and drop off.[6] Again, the rate of growth of a tumor is very decidedly influenced by the nourishment of the patient as a whole; in young, well-nourished persons the rate of growth is usually rapid, and recurrence follows promptly upon operation; in the senile and in the diseased and feeble, tumors grow slowly, and at times seem to remain stationary. The patient suffering from cancer cachexia often lingers on and on with the tumor remaining practically stationary; the development of intercurrent infections notoriously impedes the progress of neoplasms; severe hemorrhages from cancers have been repeatedly observed to be followed by an improvement in the conditions of the growth and an abatement in the progress of the disease, and in the senile a cancer may scarcely influence the health and duration of life at all. On this same principle is based the treatment of inoperable cancer by ligating the vessels that supply it, and also the "hunger cure" of cancer that was once in vogue, not to mention medieval practices of phlebotomy and the production of chronic ulcerations on the extremities of cancer patients "to let the cancer humours escape." In general the rate of growth of cancer is in direct proportion to the nourishment and vitality of the patient, quite the opposite from the relation in the infectious diseases. This is a fact, it seems to me, which may well be advanced among the many arguments that are presented against the parasitic origin of cancer. These various nutritional impediments to tumor growth, while undoubtedly important in retarding the course of malignant disease, have little bearing on our subject of cancer therapy, since they represent entirely non-specific and purely adventitious influences. In the same category may be placed the influence of infection, which, when general, may impair the rate of tumor growth,[7] and when local may destroy more or less of the tumor tissue, including a few isolated cases in which an entire growth is said to have been thus destroyed.

Of more interest to us in our search for natural means of defense are the instances in which malignant tumors show healing changes independent of such merely accidental influences as those cited above. These healing changes may consist of (1) spontaneous local inhibition or temporary retardation of growth, or (2) of retardation of recurrence after removal, or (3) of retrogression of secondary growths after removal of the primary tumor, or (4) of disappearance of portions of tumor tissue left at an incomplete palliative operation,

5. Ehrlich: Berl. klin. Wchnschr., 1905, xlii, 873.

6. Since this article was written there has been published the very interesting lecture by Handley (*Brit. Med. Jour., March 6, 1909*), on the "Natural Cure of Cancer." Handley's studies on the method of extension of cancer, which have been of such inestimable value in influencing surgical methods of treatment, have yielded some interesting results as to the healing processes that are constantly going on in every cancer. The permeation of lymphatics by cancer cells is followed normally by a process of fibrosis, and, in cases of cancer of the stomach, by the use of specific mucin stains, traces of the mucin left by destroyed cancer cells may be found in the fascia of the abdominal wall when nothing else whatever remains of the original cancer cells, thus showing how complete the local healing of cancer extension may be. Macroscopically, also, if one studies carefully from time to time the location of disseminating cancer, it may be found that *many of the nodules* disappear, while further away from the primary growth new nodules are springing up. Handley has come to the conclusion that "the progress of a cancer is normally accompanied by retrogressive or curative processes; that the recorded cases of natural repair of cancer, far from being anomalous and exceptional, merely illustrate more strikingly than usual the natural laws which govern every case of the disease." He also propounds the following as a law of cancerous growths: "Every aggregation of carcinoma cells has a definite life-cycle, and, after increasing in size for a varying period and at a varying rate, tends spontaneously to undergo degenerative and fibrotic changes. These changes extend from the center of the mass centrifugally to its periphery, lead to its shrinkage, and terminate in the replacement of the aggregation of cancer cells by a fibrous scar." Handley's account of the processes of cancer extension should be read by everyone who is interested in understanding the principles of cancer growth.

7. For review of relation of erysipelas to cancer see Bolognino: Ztschr. f. Krebsforsch., 1908, iv, 261.

or even (5) of spontaneous healing of a primary tumor without any operative intervention whatever. Cases and discussions purporting to illustrate all these different degrees of healing changes may be found reported in many places, and I shall not attempt to compile here the entire literature of the subject, but shall only refer to such instances as apply conveniently to the topic under consideration.

Total healing without operative interference of any kind, and without recurrence, is practically unknown. This does not necessarily mean, however, that such a thing does not occasionally occur, for it can be readily understood that a small malignant tumor coming under the observation of a physician competent to diagnose it would almost certainly be removed, while patients with tumors more advanced, in which operation can not be undertaken, can not be expected to recover spontaneously. In favor of the possibility of such spontaneous healing without operation is the case reported by Senger[8] in which a woman forty-two years of age developed a tumor opposite the stump of a molar tooth. The irritating stump was removed, and part of the tumor excised for microscopic examination, which revealed a carcinoma; nevertheless the remainder of the tumor gradually disappeared and no recurrence followed. Crosbie[9] describes a similar case in a young man with an ulcerating lesion of the lower lip associated with an eczematous inflammation. Part of the ulcerated area was examined and pronounced carcinoma by the pathologist, and although the rest of the growth was but partially removed the entire process healed up leaving only a little cicatricial tissue.

These and other similar cases suggest that when cancer follows chronic trauma the defensive mechanism of the body may be able, in the early stages, to overcome the cancerous proliferation if only the irritant which stimulates the malignant growth is removed soon enough.

Mohr[11] has described a case of carcinoma of the mouth which arose at the site of a carious tooth, grew slowly and at the end of four years began to show involvement of the regional glands. After reaching a very serious condition it began to improve and at the end of two and one-half years seemed to have disappeared entirely. Unfortunately in this case no microscopic examination was made, but the clinical findings were apparently quite typical.

Rotter[12] records a case of malignant adenoma of the rectum that ran a malignant course for some time; the recurrent growth that developed after an incomplete removal later healed spontaneously. Death occurred some three years later from metastases that had formed in the right iliac bone, and the portion of the bowel at the place where the recurrence had been showed only smooth scar tissue.[13]

Von Hansemann[14] saw a similar case which at first developed progressively, but by the end of eight years had disappeared entirely.

Mohr also has collected from the literature a few cases of healing of superficial carcinomas, of which he speaks as follows:

> Complete healing may occur in rare cases through calcification of an epithelioma. A few rare instances of complete or almost complete calcification and spontaneous healing of epitheliomas have been reported by Förster, Denecke, Stieda, Linser and others. Förster, for example, observed an epithelioma, the development of which was checked by complete calcification of all elements. In Stieda's cases a sharply limited connective tissue capsule with greatly calcified alveoli was present. . . . According to some authors (Dubreuil, Butlin, Bowen) it happens that in rare cases superficial epitheliomas of the skin, especially rodent ulcer, may entirely cicatrize and atrophy. . . . According to Krebig, the epithelial tumors that appear in xeroderma are relatively benign; they may spontaneously become largely replaced by granulation tissue and partly or entirely heal.

Jacobsthal[15] has described an interesting case of extensive spontaneous healing of a carcinoma of the skin of the temple of a man, aged 49, only a narrow zone of proliferating tumor cells persisting about the periphery. Here the healing seemed to be accomplished by the ensnaring and invasion of the cancer cell nests by fibrous tissue, much as Exner[16] has described the processes of healing that take place in cancer under the influence of radium. Similar destruction of cancer tissue by overgrowth of elastic tissue has been observed by von Saar[17] who found accidentally, while studying the effects of age on the mammary gland, a minute (*linsengross*) carcinoma which seemed to be undergoing strangulation by elastic tissue, and he states that, in general, epithelial growth in the mamma leads to a local hypertrophy of elastic fibers which sometimes results in the degeneration of the epithelial elements. As a rule, however, the elastic tissue disappears early and permanently from the tissues in the vicinity of advancing carcinomas of the skin.[18]

Martin[19] records the only case of spontaneous healing of uterine cancer that occurred in his large experience, in the following words:

> In the year 1872 a woman, 40 years old, was brought to me with a scirrhous ulcer of the cervix uteri and of the vault of the vagina. The diagnosis was established microscopically and an operation was refused. The symptoms were slight. Her family physician gave her condurango preparations. This physician reported to me after twenty-two years that the woman still lived; he himself has died since then, and I have not seen the patient again.

Besides this very unimposing array of more or less questionable cases in which carcinoma seems to have undergone spontaneous healing, there are several in which sarcomas and endotheliomas[20] have also disappeared, but as in these the question of differentiation from inflammatory growths is so often difficult they will not be discussed in detail. Frank J. Hall[21] has also observed what appears to have been an example of spontaneous healing of a hypernephroma, which was found encapsulated and entirely necrotic within the substance of the kidney. The chorion epithelium tumors offer by far the largest number of cases of spontaneous healing, Gaylord and Clowes having collected seven, but these tumors seem to be in a class by themselves: at times benign, at times extraordinarily malignant, they not rarely start out with every evidence of malignancy, invading the surrounding tissues and possibly producing

8. Senger: Verhandl. d. deutsch. Gesellsch. f. Chir., 1894, i, 171.
9. Crosbie: Brit. Med. Jour., Feb. 11, 1899, p. 338.
11. Mohr: Therap. Monats., 1903, xvii, 553.
12. Rotter: Arch. f. klin. Chir., 1899, lviii, 357; 1901, lxi, 881.
13. This case is also discussed by Orth, who studied the tissues. (Ztschr. f. Krebsforsch., 1904, i, 399.)
14. Von Hansemann: Mikroscopische Diagnose bosartiger Geschwülste, Berlin, 1902. Cited by Mohr, Therap. Monatsh., 1903, xvii, 553.
15. Jacobsthal: Arch. f. klin. Chir., 1907, lxxxiv, 325.
16. Exner: Wien. klin. Wchnschr., 1904, xvii, 181.
17. Von Saar: Beitr. z. f. klin. Chir., 1908, lvii, 231.
18. Bonney: Lancet, London, May 16, 1908, p. 1389.
19. Martin: Deutsch. med. Wchnschr., 1908, xxxiv, 89.
20. Randolph: Am. Jour. med. Sc., 1905, cxxix, 74.
21. Arch. Int. Med., 1908, ii, 360.

even deeper metastases, and then for no evident reason their growth ceases and all signs of the tumor disappear.[22]

The evidence concerning the healing of portions of carcinomas left after operation is far better than that offered as proof of spontaneous healing of growths on which no operation has been done. It has repeatedly happened that surgeons, having found tumors inoperable, have performed palliative operations, and assured the relatives that death would be only a matter of a few months, only to be surprised by having the patient live for years, in many instances dying not from the primary growth but from remote metastases when the original tumor had been quiescent or even retrogressive for a long time. In other cases the microscope has shown that the surgeon's incision in removing a tumor has passed through cancerous tissue, and yet, in spite of this, local recurrence had not taken place. Such happenings as these can be found scattered about in the literature, and they are undoubtedly far from rare; but often they have been misinterpreted, for the unexpectedly favorable outcome of the case has led to the suspicion in the first class of cases that the diagnosis may have been incorrect, and in the instances in which local recurrence has not appeared in spite of incomplete operation it has been thought that the remaining cancer cells were perhaps snared off by the ligature, or destroyed by a stitch abscess, or something of the kind Apropos of the cases of improvement of primary growths which sometimes lead to withdrawal of the diagnosis of malignancy, I may recount the history of a patient in whom I was personally interested. In 1893 this patient, a man aged 63, was operated on for what seemed to be a recurrent appendicitis with abscess formation. On opening the abdomen, however, the supposed abscess was found to be a gelatinous mass of tissue, which was said by the operating surgeon to be a colloid cancer; the wound was closed except for drainage, and an unfavorable prognosis given. In spite of the development of a fecal fistula the condition of the patient began to improve after a short time, and a year after the first operation he underwent a second laparotomy for the purpose of closing the fistula. The surgeon who perfomed this operation found what was probably a small calcified mass from an old appendiceal abscess, attached to the bowel; although there were numerous adhesions he was able to remove this calcified plaque and closed the fistula. The patient made an excellent recovery, gained strength and weight, and resumed a very active life for a man of his years as stock raiser and farmer. Of course the first diagnosis of cancer was discarded and it was held up as a grave error on the part of the surgeon who had made it. It was not until 1905, twelve years after this first diagnosis had been made, that the patient began to be again troubled with abdominal symptoms, chiefly tympany with accompanying discomfort, in the course of a year developing into severe attacks of intestinal obstruction that eventually required operation for the relief of the obstruction. An extensive colloid carcinoma involving the abdominal viscera was found, apparently beginning in the vicinity of the cecum where there was a large tumor mass; smaller growths were found everywhere in the omentum, mesentery, and in the wall of the intestine. An anastomosis of the ileum to the colon was made to relieve the obstruction caused by the large mass in the cecum, but the patient, aged 76, lived but a few days.

In this case it is impossible to learn further details about the first two operations, for the reason that the patient, although given up as the victim of an inoperable cancer of the cecum, outlived by several years the three surgeons in whose charge he was. Therefore I do not know whether the original diagnosis was confirmed by the microscope or not; but there can be little doubt that it was correct, for the operator was a surgeon of considerable experience and he defended his diagnosis with great positiveness, stating that there could be no doubt that the patient had a colloid carcinoma of the cecal region, which was in an inoperable condition. Apparently, following the operation the primary growth subsided rapidly, so that a year later another surgeon noticed nothing but abundant adhesions and a diseased and calcified appendix from which had resulted a fecal fistula; not until some eleven years after this second operation had the growth developed enough to cause symptoms. Its colloid nature, and its evident origin in or near the cecum, substantiate the long discredited diagnosis at the time of first operation.

Czerny[23] discoursed interestingly on this topic at the conference for the investigation of cancer in 1907, recounting various instances from his own rich experience and from the literature. He speaks of intestinal cancers as being especially likely to show the late return after palliative operation, as in the above case, recounting the following instances in his own practice:

A physician came to him for operation for a rectal carcinoma, and the carcinoma, together with a cancerous inguinal gland, was removed; yet after this obviously incomplete operation the patient was able to resume practice for seven years, and then died of a diffuse recurrence in the peritoneum.

A woman was operated on for a large carcinoma of the sigmoid flexure, of at least two years' duration, which was adherent to a loop of the small intestine. Although this certainly was not completely removed, yet after four years she was still free from evidences of recurrence.

In another case of resection of a carcinomatous sigmoid flexure the pathologist found that the line of incision had passed through cancer tissue, and yet five years later the patient showed no signs of recurrence.

He also referred to the frequent observation that after a palliative gastrostomy an esophageal cancer may so improve that swallowing again becomes possible, and to the decrease in size of inoperable rectal carcinomas which may follow colostomy, so that they sometimes become operable. These instances are probably related to the cases described previously in which removal of local irritation has been followed by retrogression of cancers (cases of Senger, Mohr, Proescher). Likewise after gastroenterostomy inoperable carcinomas of the stomach sometimes improve greatly, and Daneel has collected from the records of Czerny's clinic no less than eleven cases in which after gastroenterostomy for inoperable cancer the patient has been found to be well from two to fourteen years later. Although the possibility of incorrect diagnosis in these cases exists, since no microscopic examination was made, yet it is not often that a surgeon of Czerny's experience fails to recognize a cancer that is exposed to direct examination. There is also Beck's case, reported by Petersen and Colmers.[24]

22. Literature given by Gaylord and Clowes: Surg., Obst. and Gynec., 1906, ii, 633; Schmauch, ibid., 1907, iii, 259; Teacher: Jour. Path. and Bacteriol., 1908, xii, 487.

23. Ztschr. f. Krebsforsch., 1907, v, 27.

24. Petersen and Colmers: Beitr. z. klin. Chir., 1904, xliii, 159.

which seems to be beyond criticism. A colloid cancer of the pylorus was resected, but several cancerous glands were left behind along the lesser curvature; that they were cancerous was shown conclusively by the fact that a few which were removed were found to be involved. Three years later the patient was operated on for an umbilical hernia, and examination of the stomach showed no signs of local recurrence or of cancerous glands. One-half year later the patient died from intestinal obstruction, and at autopsy the only cancer found was a metastasis in the center of a uterine myoma and another in the sigmoid flexure; the cancerous lymph glands left behind at the time of operation had disappeared, and there was no recurrence in the stomach.

Gould[25] describes an interesting case in which two years after removal of a typical scirrhous carcinoma of the breast, the axillary glands became enlarged and were removed, only to be followed two years later by extensive recurrence in the scar, development of dyspnea, and later apparent involvement of the axillary and cervical glands, the left femur and right lung. Nevertheless these various recurrences and metastases subsided later, after the woman had been desperately sick for some time, and health was largely restored with none of the palpable tumors remaining. Even the crippled femur became repaired enough so that the patient could walk on it. Osler, Vulpian and others have reported similar cases.

Lomer[26] has made an extensive compilation of the cases in which palliative operations on cancer of the uterus have been followed by freedom from local recurrence for two years or more, and collected reports of 213 cases of this kind. Although he accepts cases that a less enthusiastic partisan might not consider well substantiated (notably ninety recoveries claimed by one American author), yet undoubtedly there are many of these reports that are correct, and there seems to be a remarkably large proportion of success among the cases persistently treated for each recurrence with the actual cautery, a point on which Czerny seems to agree. Perhaps the best authenticated of these is the one reported by Ziemssen, who examined at autopsy the body of a woman who had been operated on seventeen years before death for uterine carcinoma; local recurrence had developed after the operation, which was treated by cauterization, and yet no signs of malignant growth were found at the autopsy. Lomer himself had a patient who showed no evidences of recurrence ten years after an incomplete operation for carcinoma of the uterus. More recently Weindler[27] reports three cases of recovery for over five years of patients with inoperable cancer of the uterus treated by local cauterization.

Fleischmann[28] also has observed three cases in which, in spite of apparently very incomplete extirpation of uterine carcinoma there was no recurrence eleven, ten and eight years after the operation. On the other hand, so experienced an operator as Martin,[29] who has similarly treated inoperable uterine cancers by local cauterization, has had in his Greifswald clinic but one such patient live as long as twenty-three and one-half months, and one four and one-half years; 70 per cent. died in the first year.

25. Tr. Clin. Soc., 1897, xxx, 205.
26. Ztschr. f. Geburtsh. u. Gynäk., 1903, l, 305.
27. Zentralbl. f. Gynäk., 1907, xxxi, 632.
28. Wien. klin. Wchnschr., 1908, xxi, 1492.
29. Deutsch. med. Wchnschr., 1908, xxxiv, 89.

There are numerous other isolated instances[30] indicating more or less healing of incompletely removed carcinomas, not to mention an even greater number of sarcomas, among which the giant cell sarcoma of bone especially may not recur after mere local curetting and other conservative methods, as Bloodgood,[31] in particular, has emphasized. Of the other forms of sarcoma, lymphosarcoma seems most likely to show retrogressive and latent periods,[32] but here especially errors of diagnosis are easily made.

From the evidence in these cases it would seem that in some rare instances the local forces, whatever they may be, which hold in check a malignant tumor, may succeed in overcoming it entirely, especially in certain cases when part of the tumor is removed. Ehrlich[33] has advanced an idea, as the outcome of his experiences with the transplantable cancer in mice, which may account for some of these cases. Observing that after an implanted cancer has once begun to grow vigorously it is almost impossible to plant another graft successfully elsewhere in the same animal, he suggests that some peculiar foodstuffs which exist in limited amount in the body may be necessary for cancer growth, and that when cells with a high avidity for this substance are actively growing they may accumulate all that is available and leave none for newly implanted cells.[34] Such immunity to inoculation is referred to as "atreptic" by Ehrlich. This hypothesis reminds one of the "exhaustion theory" of immunity advanced by Pasteur, and may seem rather fanciful, but it illustrates a general principle which often manifests itself, namely, that when a tumor produces abundant and vigorous metastatic growths the primary growth may sometimes cease active increase, and may even retrogress to a considerable extent. An interesting case in point is reported by Freeman,[35] as follows: A man aged 35 years, had a small indurated, crusted sore on the right side of the lip, which persisted for about one year, and then disappeared leaving a small scar. Less than one year later, and nearly two years from the beginning of the disease on the lip, a glandular swelling was observed in the right submaxillary region which was removed after about nine or ten months later; local recurrence took place and developed rapidly until a fatal carcinoma of the neck and face caused death. This growth, which apparently came from the submaxillary glands, was a squamous-celled carcinoma, indicating that the growth which had disappeared from the lower lip was a primary carcinoma.

Jacobsthal[36] mentions a very similar case in which a patient with carcinomatous submaxillary glands showed no other primary growth than a healed scar on the lower lip, where an ulcer had been which healed three-fourths of a year previously.

Seven cases of cancer of the breast, in which the primary growth slowly decreased until it had almost entirely disappeared, while at the same time secondary growths were appearing, are cited by Williams.[37] In all these the secondary growths proved fatal, although

30. Several of these have been collected by Gaylord and Clowes, Surg., Gynec and Obst., 1906, ii, 633.
31. Bloodgood, Joseph C.: Conservative Operations on Bone Tumors, THE JOURNAL A. M. A., Feb. 1, 1908, l, 325; Johns Hopkins Hosp. Bull., 1903, xiv, 134; Progressive Med., December, 1902, p. 150.
32. See Ruff: Wien. klin. Wchnschr., 1906, xix, 528.
33. Verhandl. d. deutsch. path. Gesellsch., 1908, xii, 13
34. It should be mentioned that a number of investigators in other laboratories have not found this inhibiting influence of growing tumors upon secondary implantations, as described by Ehrlich.
35. Freeman, Leonard: Spontaneous Disappearance of Carcinoma of the Lip, THE JOURNAL A. M. A., 1901, xxxvi, 1309.
36. Jacobsthal: Arch. f. klin. Chir., 1907, lxxxiv, 333.
37. Twentieth Century Practice, 1898, xvii, 394.

at the time of death there remained practically nothing of the tumor in the breast, which might be considered as a form of atreptic process, the secondary growth withdrawing all the suitable nutriment from the primary growth. Osler and others have described similar examples of this sort of retrogression of primary tumors.

Another set of cases to which I particularly wish to refer are those in which operative removal of the primary growth leads to disappearance of, or healing changes in, the already present secondary growths. The case of Beck, cited above, is one of this sort, and there are others in the literature. I have had the good fortune to study a remarkably clear case of this type, thanks to the kindness of Dr. Alexander Harvey, in whose practice it occurred, and who has supplied me with his notes on the case.

History.—The patient was a woman, about 40 years of age, who had previously been operated on for the purpose of performing a ventrofixation of the uterus. In December, 1905, she complained of neuralgic pains in the facial, cervical, intercostal and sciatic nerves; on examination a tumor was found in the left breast, which was removed by operation on Dec. 20, 1905. After the operation there was considerable pain in the left arm and cervical region, and in the operation

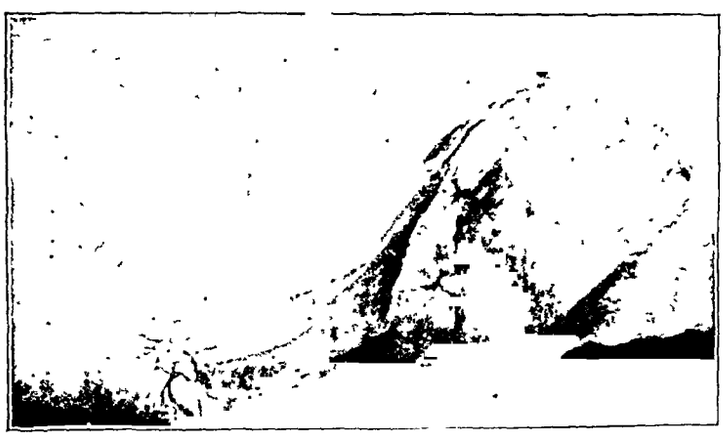

Fig. 1.—Gross appearance of the liver. The depressed scars near the lower edge of the right lobe and on the anterior surface of the left lobe are the sites of islands of contracted scar tissue, which have replaced almost totally the tumor metastases that had formed here.

wound; these pains continued for the following eighteen months, although until nearly the end of this time her general health was good. In March, 1907, the patient reported suffering with severe occipital headache, loss of 20 pounds in weight, and polyuria. The urine showed a few hyaline and granular casts and a trace of albumin, specific gravity, 1.003, total amount in twenty-four hours as high as 90 ounces, but without the presence of sugar. She suffered from insomnia, severe headaches that could not be controlled by medication, and periodic vomiting; interstitial nephritis was suspected. Later the patient developed slight coma, with ammoniacal breath, dry skin, accentuated second aortic sound. She was removed to the Baptist Hospital, where she died in coma that had lasted two days, with several minor convulsions just preceding death, which occurred on June 15, 1907.

Autopsy.—The body was slender, but not emaciated. The left mammary gland was the site of a scar, which extended into the axilla, but there was still enough fatty tissue present to preserve the outline of a fairly developed breast. There could be found no induration about this scar, and no signs of tumor tissue could be found by dissecting up the tissue beneath the scar. The axillary glands were not enlarged, and the right breast was normal. In the abdominal cavity the uterus was found adherent to the scar of a median laparotomy wound, and attached to it by a silkworm-gut suture. The left tube and ovary were missing, and about one-fourth of the right ovary only remained, with the normal right tube. In the lower end of the ileum was a hard white nodule, about 5 mm. in diameter, situated in the wall of the bowel 50 cm. above the ileocecal valve; the mucosa was not ulcerated over this nodule. In the mesentery of the upper jejunum were found about a dozen indurated lymph glands, containing an abundance of firm white tissue, and averaging about 3 mm. in diameter; there was also one hard and slightly enlarged retropancreatic lymph gland. The lower retroperitoneal lymph glands were not enlarged. The thoracic viscera showed no similar nodules or other changes of interest. The liver was found to be slightly smaller than normal, and dark in color. Just above the gall-bladder notch was a striking area of depression, due to a wide white scar several millimeters beneath the surface of the liver; the margins of this scar consisted of a narrow zone of what seemed to be tumor tissue infiltrating the liver for a short distance, and giving it a whitish appearance. In the anterior surface of the left lobe were two similar areas near together, one 15 mm. in diameter, the other 25 mm. (Fig. 1). In the stomach there were no evidences of carcinoma, but beneath the serosa, especially in the pyloric region, were numerous small subserous nodules, white and the size of a pin-head. The pancreas and right adrenal showed no changes, but the left adrenal was firm, white on the cut surface, and in the middle was a small nodular indurated area. The kidneys showed no gross changes, and there were no other findings of interest, except the presence of a few gallstones. Unfortunately the brain and meninges could not be examined.

Anatomic Diagnosis.—Old amputation of left breast; secondary carcinoma nodules, with fibrotic changes in liver, mesenteric glands, adrenal and ileum; old laparotomy wound with adherent omentum; old ventral fixation of uterus with amputation of left ovary and tube and part of right ovary; slight congestion of liver, kidneys and spleen; adhesive fibrous pleuritis, edema of lungs; calcified nodule in lung; cholelithiasis.

Histologic Examination.—Mesenteric Lymph Glands: The largest, 3 to 5 mm. in diameter, had been almost entirely replaced by carcinoma cells and fibrous tissue, the latter predominating. In the main the tumor cells were much compressed between dense bands of fibrous tissue, had deep staining nuclei and little cytoplasm, and their arrangement was in long strands with a tendency to tubule formation when not too much compressed. In a few places about the edge there seemed to be invasion of previously uninvolved lymphatic tissue where the cancer cells were not compressed, but even here no mitotic nuclei could be found. There was no evidence of necrosis or of giant-cell formation. Some of the smaller glands showed isolated groups of cancer cells infiltrated by lymphoid cells; others showed small areas of hyaline substance, and still others had an overabundance of fibrous tissue, suggesting that possibly there might have been a period when cancer cells were present in these glands, but that they had been replaced by hyaline material and fibrous tissue.

Adrenal: This organ was extensively infiltrated with carcinoma cells, peculiar in that the adrenal tissue was merely replaced without alteration in the size or shape of the organ. Both cortex and medulla were involved, but the growth was checked by the capsule. In many places, especially near the center of the adrenal, there was an abundance of fibrous tissue compressing the carcinoma cells, which tended to be arranged in tubules and in the outer edges of the carcinoma was frequently found an extensive round-cell infiltration. Where the amount of fibrous tissue was least mitotic nuclei could occasionally be found; they were also present in tumor thrombi found in the larger vessels of the medulla. There seemed to be two periods of growth represented here; one in which the carcinoma cells were partly replaced by scar tissue, and one in which the growth was now active.

Nodule in Ileum: This consisted of fibrotic tumor tissue having its center in the submucous connective tissue, but infiltrating into the serosa and mucosa. In the latter region the cells seemed to be growing freely without much connective tissue about them, but everywhere else there was much fibrous tissue which compressed the cancer cells. Mitoses were very scanty. Eosinophiles were abundant in the mucosa.

Stomach: The subserous nodules described at the autopsy were found to be small, well developed lymph glands, located in the serosa, and showing no tumor cells.

Liver: (Figs. 2 and 3). The depressed scars were composed of a uniform mass of scar tissue, poor in vessels, and with only an occasional group of cancer cells at the edges. This scar tissue, devoid of cancer cells, measured about 15 mm. across, while the zone of activity proliferating cancer cells outside it measured about 2 to 3 mm. The scar tissue passed quite abruptly into the cancer tissue and gave the impression that the healing changes had been rather suddenly terminated and active proliferation had begun not long before death. The proliferating cells were in columns and tubules, showed many mitotic nuclei, and a moderate amount of round-cell infiltration, but the free margin seemed to be invading the liver tissue without inciting any considerable reaction.

To recapitulate this case, we have to do with a woman who remained in fair health for nearly eighteen months after the removal of a carcinoma of the breast, and without recurrence in the scar or in the regional glands. The patient died, after a brief illness, with symptoms resembling those of uremic coma and accompanied by polyuria, very probably from cerebral or meningeal metastases, although this could not be determined, as we were not permitted to examine the head. The condition of the secondary growths that were found in the adrenals, mesenteric glands, ileum, and liver, especially the latter, indicated very clearly that, although active proliferation had been going on just before death, yet there had been an interval in which healing changes had predominated, so that in the liver nearly all the cancer tissue had been replaced by scar tissue, causing cicatricial depressions in the liver such as are commonly found in syphilis. Apparently on removal of the primary tumor growth had been temporarily checked in the secondary nodules then existing, and healing processes had made away with almost all the cancer tissue in the metastases in the liver. It must be that the conditions obtaining in those cases in which deep-seated metastases first make themselves known many years after the removal of a tumor are similar to those observed in this case.

Fig 2.—Low-power view of a cross-section of the large mass of scar tissue above the gall-bladder notch. The large, light colored area represents the island of hyaline tissue which replaced the cancer growth. About this is a mass of vascular scar tissue and fibrous adhesions, not yet contracted

Cases of similar nature have been described by others, and even with complete healing of the metastases; of these one of the most striking is that of Schuchardt.[38] In a patient on whom he operated for advanced carcinoma of the stomach were found large numbers of metastases on the peritoneum. Two and one-half years later the patient died from pleuritis, and at autopsy nothing remained of the peritoneal metastases and there was no recurrence in the stomach. Unfortunately in this case no microscopic examination of the nodules was made, therefore the possibility of a combination of gastric carcinoma and peritoneal tuberculosis cannot be excluded.

Roux[39] also had a similar case, in which at a resection of a gastric carcinoma general carcinosis of the diaphragm was found, yet three years later the patient was still in good health.

Graham[40] has reported a case from the Pathological Laboratory of Rush Medical College of a woman who was operated on in June, 1897, for scirrhous carcinoma of the breast, which showed no signs of recurrence. In 1903 she became sick with diabetes insipidus, and died on Nov. 8, 1903. At the autopsy there were found no evidences of local recurrence in the breast, but fibrous cancer nodules were found in the pleura, liver, pancreas and adrenals. These nodules were either entirely encapsulated with scar tissue, which also intersected the tumor tissue, and when not encapsulated with scar tissue the tumor nodules were surrounded with young granulation tissue. In addition to these features the presence of pseudo-giant cells, the appearance of atrophied and necrotic epithelial cells in portions of some of the tumors, and the absence of mitotic figures all pointed to a healing process which had checked the growth of these tumor metastases, which must have been in existence since, over six years before, when the breast tumor was amputated.

These cases all seem to indicate very clearly that the primary growth exercises in some way an influence on the secondary growths. Very frequently the sequel of an operation on a primary tumor is the rapid spreading and increase in size of metastases, so that the removal of a slowly growing scirrhous cancer may be followed in a few weeks by death from an enormously rapid and abundant development of secondary growths. On the other hand, it occasionally happens, as in the cases cited above, that after the removal of the primary tumor the secondary growths seem to lose their power of proliferation, so that they may either become entirely replaced by fibrous tissue, or they may retrogress for a time and then begin to take on renewed activity of growth, as in my own case. Undoubtedly many of the instances of late recurrence belong to this last class. Labhardt[41] has collected and reviewed the records of many cases of late recurrence of carcinoma, and found that of 2,142 cases of mammary carcinoma with recurrence, in 3.7 per cent. recurrence followed at a period of over three years after operation, and of 257 recurrences of carcinoma of the rectum 9 per cent. were after the three-

38 Zentralbl. f. Gynak., 1901, p. 664.

39 Cited by Mohr: Therap. Monatsh., 1903, xvii, 553.
40 Tr Chicago Path Soc., 1907, vii 8
41. Labhardt: Beitr. z. klin. Chir., 1902, xxxiii, 571.

year limit, and 9 per cent. of 373 recurrences following 1,300 operations for lip and face carcinoma appeared after the third year. Hirsch[42] found that of 371 cases of recurrence of mammary carcinoma after operation 109 (29.3 per cent.) appeared between the fifth and fourteenth years after operation. Bircher[43] found records of about fifteen cases in which recurrence was first observed after operation for mammary carcinoma during the second and third decennium, of which one was in the twenty-ninth year and another in the thirtieth year. Cameron[44] also describes a case in which recurrence was observed beneath the pectoral muscle twenty-seven years after amputation of the breast for cancer. In these cases it would seem that cancer cells must have lain dormant for all these years, perhaps undergoing partial replacement by connective tissue but with a few cells remaining viable to start up proliferation again when the necessary conditions were present. Such facts make us wonder if most of our operative cures of cancer may not depend on spontaneous retrogression of metastases present at the time of operation, rather than on the absence of such metastases, which we have always assumed must account for all successful results.

Just how the removal of the primary growth causes this inhibitive influence on existing metastases is an interesting problem. It may be imagined that the primary tumor supplies some element which either stimulates the secondary growths or so injures the normal tissues that the secondary growths are not impeded. As supporting the first hypothesis to some extent may be mentioned the observation of Leo Loeb[45] that pieces of benign tumors may be transplanted into another place in the same animal in which they have arisen, and remain alive throughout, whereas when implanted into a different animal of the same species they become necrotic in the center or throughout. Apparently an animal in which such a tumor exists has something in its blood or tissues that favors the growth of this tumor and of secondary growths of the same tumor. An adenoma of the mammary gland of a rat that was transplanted into another part of the body of the same rat was observed to enlarge simultaneously with the swelling of the mammary gland that accompanied a pregnancy. Here, it would seem, is evidence of a stimulus that may incite tumor cells to multiply, and which is, perhaps, different from the substances that merely permit the transplanted tumor cells to live.

A possible explanation of the retrogression of metastases after operation which I would suggest is *autoimmunization*. During operative manipulation a considerable amount of cancer juice and cancer tissue is forced into the circulation; ordinarily, as we too frequently observe, this results in a rapid and wide-spread recurrence, but it may happen that under certain circumstances these cancer products stimulate the reactive forces of the organism and lead to an active immunization. In support of the view that such immunization by cancer products is possible I would recount the very important case described by Mackay.[46] The patient, a woman of 37, was operated on for a scirrhous carcinoma of the breast, but recurrence after thirteen months was so extensive that operation was impossible. Twenty-one months after the operation there developed a bilateral pleurisy with large amounts of bloody effusion, apparently carcinomatous, and by the end of four months the patient seemed to be almost in extremis; suddenly the fluid in the chest cavity began to subside, coincident with which the patient's general condition improved rapidly, and the recurrences, so far as they were visible, disappeared in a remarkable way. This disappearance is described (in a personal letter) as follows: "I described the changes as if the tumors had withered. A closer description would be to say that it looked as if the tumors had dissolved, and so dissolved, had become absorbed, leaving nothing but the covering of skin." Apparently the serum from the cancerous pleura, on being absorbed, either itself attacked the existing growths, or else, which seems to me more probable, it stimulated the resisting powers of the organism and led to the development of cytolysins for the cancer cells which caused the rapid retrogression of the cancer tissue.* Ribbert[47] has reached a similar conclusion from his studies of the local reaction that occurs about carcinomas. In the early stages of the growth of a carcinoma the surrounding connective tissue is frequently stimulated to proliferate, so that the growth is at first walled off; later this reactive proliferation becomes less and less until it ceases entirely, and the carcinoma then advances unimpeded. Therefore, he thinks that in the case of spontaneously developing tumors there is no process of immunization, but rather the development of habituation of the tissues to the tumor, and the only prospect of immunization con-

Fig. 3.—Higher-power view of the junction of the hyaline scar tissue and vascular, cellular scar tissue. No cancer cells whatever are present in this scar tissue.

42. Dissertation, Freiburg, 1904
43. Bircher: Zentralbl. f. Chir., 1907, xxxiv, 756.
44. Brit. Med. Jour., March 6, 1909, p. 577.
45. Loeb and Leopold: Jour. Med. Research, 1907, xvii, 299.

46. Brit. Med. Jour., July 20, 1907, p. 138.

* Dr. Mackay informs me by letter that his patient lived only a few months after this fortunate relief from her symptoms. He says: "My patient, I am sorry to say, died some five weeks after I had read my paper. [This would make the day of death about fourteen weeks after the events referred to.] She had gone through a very great amount of suffering under circumstances of excessive mental strain, and she died of exhaustion. So far as we could make out clinically the disease had absolutely left her. Whether, if she had lived, it would have recurred, is another matter."

47. Deutsch. med. Wchnschr., 1906, xxxii, 1693.

sists in the sudden overwhelming of the organism with cancer substance which would stimulate an energetic production of antibodies, just as appears to have occurred in Mackay's case. Ribbert suggests that possibly injection of extracts of a cancer immediately after its removal by operation might induce an active immunity sufficient to destroy hidden metastases and cells left behind in the operation; a suggestion, which, in the light of the observations recorded above, seems well worthy of trial.

Finally, as another source of evidence of resistance of the body to malignant growths, may be mentioned the conditions under which metastases are formed. There seems to be prevalent an impression that the escape of cancer cells from the primary growth necessarily means the formation of secondary growth where these cells lodge, which is, fortunately, very far from the truth. In all probability only an extremely small proportion of the tumor cells that become scattered about the body ever succeed in multiplying, for otherwise nearly every malignant tumor would develop metastatic secondaries almost at its very start. It is by no means uncommon, for example, to find a hypernephroma growing into the renal vein as a soft friable tumor thrombus, from which cells must be continually breaking away, yet without having produced metastases. In primary carcinomas of the liver there have frequently been found hepatic veins containing tumor thrombi, and yet no secondary growths could be found in the lungs or elsewhere. Furthermore, we have a very excellent example of local susceptibility and local resistance to tumor growth in the well-known tendency of chorioidal melanosarcoma to produce metastases chiefly in the liver. The cells which escape from the primary growth in the eye must first pass through the lungs, and then be distributed all over the body in the systemic blood, of which the liver gets only a relatively small part through the hepatic artery besides what has passed through another capillary filter in the intestines and entered the portal vein; yet not infrequently in such cases the liver is found riddled or solidly infiltrated with melanosarcoma while the lungs and the rest of the body are almost entirely free from metastases. Evidently many tumor cells which have been lodged in the lungs and other tissues of the body must have been destroyed, while those that lodged in the liver found a fertile soil or a lack of local resistance. Other examples of this sort of local immunity could be cited in great variety.

Cohnheim, indeed, believed that the entire matter of metastatic growths, and, by the same token, the entire malignancy of cancer, depended, not on any peculiarity of the cancer cells, but on the degree of local power to destroy these cells. This view was based on his experiments with periosteum, which, when injected intravenously in small fragments, lodged in the lungs and formed by proliferation nodules of bone; but after a short time these nodules became absorbed. Lubarsch believes that the local resistance to tumor growth is much modified by the poisons which are secreted by the primary growth. M. B. Schmidt[48] has shown that by careful examination of the lungs of patients dying from abdominal cancer, emboli of cancer cells may be frequently found, (in fifteen of his forty-one cases) showing all stages of disintegration or organization, and others have repeatedly observed the same thing in mouse cancers. Similarly, degenerating cancer cells may be found in non-cancerous regional lymph glands of patients with cancers, or in the lymph sinuses about the glands, while hyaline and other degenerative changes may be found in a large proportion of such glands even when there is no bacterial infection to which they might be ascribed.[49] On account of these facts Lubarsch[50] suggests that cancer cells must first be repeatedly set free and destroyed in the regional glands until the poisonous materials thus liberated have so overcome the cells of the glands that they can no longer successfully resist the cancer cells. Similarly the regional glands, and also more remote tissues, may be prepared for invasion by cancer cells through the action of injurious materials discharged from the primary tumor. As Petersen expresses it, carcinoma cells can not flourish at once in remote tissues, because the soil is not fertile for them; they can grow only in soil that has been first thoroughly "manured" (*gedüngt*) with epithelial toxin brought by the lymph stream.

In any case, from the behavior of secondary growths after their formation as well as from the conditions that are necessary in order that secondary growths may occur, we obtain evidence that the tissues or the body fluids are enabled to defend the body to a very considerable extent against the cells of malignant tumors. The mechanism of this defense is not understood. One thinks at once of cytolysis, knowing that immunization to any given type of cells seems to lead to the production or more or less (generally less) specific cytolytic substances. In the cases in which healing changes have been studied, however, there have not been found good evidences of cytolytic changes, and Gaylord and Clowes state that there is no histologic evidence of cytolytic action in experimental tumors of mice undergoing spontaneous recovery. Sometimes the fundamental change seems to be a loss of the proliferative power of the cancer cells, so that the surrounding proliferating connective tissue now grows more rapidly than the cancer cells, strangling and destroying the latter through starvation. Becher, Schwartz, Petersen, and others have considered that in the healing of superficial carcinomas phagocytic giant cells are active destructive agents, but Borrmann,[51] after a study of 265 cutaneous carcinomas, concludes that these giant cells attack only hornified and dead epithelial cells, and never the living, proliferating cells. On the whole the evidence seems to be in favor of the view that it is simply a decrease in proliferative power that leads to the spontaneous healing or to long periods of latency. Gaylord and Clowes conclude from the histologic findings in tumors that are undergoing resolution either spontaneously or under the influence of *x*-rays, that it seems plausible "that both the *x*-ray and the immune forces in spontaneous retrogression act in opposition to some stimulus which causes the limitless proliferation of the cancer cell." One can imagine a lack of the hypothetical *attraxins* which B. Fischer's[52] experiments have suggested act as stimulants to epithelial proliferation, or, possibly, as Graham has mentioned, antiattraxins may be formed. Certainly it is fundamentally important that this mechanism of defense should be most thoroughly worked out, for in it lies what seems at the present time to be the key to the solution of the problem of the specific therapy of cancer.

48. Verhandl. d. Gesellsch. deutsch. Naturforsch., 1898, p. 11.

49. Fromme (Ztschr. f. Krebsforsch., 1907, v. 39) considers that mast cells play an important part in the defense of the lymph glands against cancer.

50. Ztschr. f. Krebsforsch., 1907, v, 114.

51. Deutsch. med. Wchnschr., 1904, xxx, 1267.

52. München. med. Wchnschr., 1906 liii, 2042.

Just now our chief hope lies in the experimental work that is being done in numerous laboratories with the transplantable tumors of the lower animals. Not infrequently more or less retrogressive changes occur in these experimentally produced tumors, sometimes leading to definite healing of the new growths. Gaylord and Clowes[53] have observed healing of implantation tumors of mice that had begun to grow, in no less than 101 of 711 inoculations, but of these in only 11 had the tumor reached a diameter of 1 cm. or more. Other experimenters have not observed healing of successful grafts in nearly so large a proportion of their cases. It is well known that animals are immune to the majority of tumors with which inoculation is attempted, and even with the most readily transplanted tumors a considerable proportion of the inoculated animals do not develop tumors, indicating a very high degree of natural resistance. Also, susceptible animals in which inoculated tumors are growing rapidly are usually immune to inoculations.

But besides this natural, congenital immunity it has been found possible to obtain a varying degree of acquired immunity, both active and passive, in experimental animals. This fact offers us certainly the greatest encouragement in our search for means of checking malignant growth, and the evidence so far collected may be summarized briefly as follows:[54] Immunization against transplantable tumors was first demonstrated in mice by Jensen, in dogs by Stickler, and in rats by Leo Loeb. It was found that animals which had recovered spontaneously from transplanted tumors were quite immune to subsequent implantations of tumors, and that they might also be made immune without having to be actually infected with tumor growths. Stickler found that living tumor cells (sarcoma in dogs) injected directly into the circulating blood do not give rise to tumor growth, but, on the other hand, render the animal immune to subsequent inoculation. Ehrlich rendered mice immune to transplantable carcinoma by previous injection of benign mouse tumors, while Bashford found that the same result could be obtained with repeated injections of mouse blood, and Schöne immunized successfully by repeated injections of mouse embryos and various tissues of mature mice. On the other hand, immunity can not be produced by injection of tumor cells killed by chloroform, by heat or by cold.

Apolant[55] has also observed a form of healing of mice carcinoma that has never been observed in human carcinoma, namely, reversion of typical carcinoma to a benign adenomatous structure.[56] The change of adenomas and other benign tumors in man into malignant tumors has been observed frequently enough, but never the reverse change from malignancy to benignancy. This phenomenon occurred in experimental cancer only in animals that had previously been partially immunized against mouse carcinoma, which would seem to indicate that the resistance of the organism determines the nature of a tumor, just as the same factor seems to determine the starting of the new growths.

Passive immunity seems as yet not to have been so successfully produced as active immunity, nevertheless there is evidence that the blood of animals spontaneously recovering from tumors may sometimes cause retrogression and even healing of tumors in inoculated animals, as well as render animals more or less resistant against implantation of tumors.

Also we have the "atreptic" immunity of Ehrlich, which has been previously mentioned, the fundamental manifestation being that animals with rapidly growing malignant tumors show themselves absolutely or relatively immune to subsequent inoculation with tumor tissue in some other part of the body,[57] an observation which has not been altogether confirmed by other investigators. Gay[58] has observed a somewhat related phenomenon in rats with transplantation tumors. In the strain of tumors studied by him there seems to be a "premetastatic period" of about thirty days, during which period only could evidence of the presence of antibodies for the tumor tissue be found by the fixation test. If during this premetastatic period, while the animal is still able to react to the implanted tumor by forming antibodies, a second implantation is attempted, in many cases not only does the second tumor fail to grow (atreptic immunity of Ehrlich), but the first tumor may disappear entirely or retrogress and undergo fibrosis.

Such observations accumulating within the few years during which systematic investigations of tumor transplantation have been in progress, give much hope that eventually something may be done for the cancer patient besides radical operation. How much we are entitled to transfer results of experiments with the transplantable tumors of lower animals to our pathology of human cancer is still a debatable question, but I trust that the human cases that I have collected and discussed will indicate that there also exist in man natural forces that tend to cause healing of malignant tumors, and that the possibility of augmenting these forces is before us and should encourage us to constant effort toward this end.

A Plea for a Wider and Better Extension of the Knowledge of Sanitary Science.—W. P. Mason in *Science*, April 23, 1909, says that this has been called an age of hygiene. The statistics and records of health departments show that the reduction in the death rate, etc., in many of the contagious and infectious diseases, justify the term. Still, a better knowledge of sanitary science should be extended to all classes of people. The sanitary instruction received in the schools is too often of an inferior quality, and there is too little of it given. Militia and army officers and all men who have charge of large bands of laborers should have enough knowledge of sanitary science to enable them to protect not only their own men, but also the communities in the neighborhood of their camps, from contagion and epidemics. "Of all the members of a community the physicians are the ones towards whom we most quickly look for instruction in matters sanitary;" then "it is pertinent to inquire if the medical schools provide such instruction as will place their graduates in position to properly meet their double responsibility. Such a question must too often be answered in the negative." Likewise, trained nurses are too often lacking in sanitary information. Too few of them know "why corrosive sublimate is not uniformly a good disinfectant for tuberculosis sputum." Sanitation in the matter of air and water is particularly considered. It is shown why careful supervision of water supply is demanded, and why more stress should be laid on the quality of the air we breathe. Although surprising, "the cold fact remains that bad air is responsible for more deaths than alcohol."

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53. Surg., Obst. and Gynec., 1906, ii, 633; also Seventh Ann. Rep. Cancer Lab. New York State Board of Health, 1905-6.

54. For summary see Sticker: Immunität und spontane Heilung der Krebskrankheit, Ztschr. Krebsforsch., 1908, xii, 55.

55. München. med. Wchnschr., 1907, liv, 1720.

56. Orth (Centralbl. f. Path., 1908, xix, 449) takes exception to Apolant's view that the adenomas thus formed should not themselves be considered carcinomas rather than benign tumors.

57. For discussion of this topic see report of the symposium on cancer research in the Verhandlungen d. deutsch. pathol. Gesellsch., 1908, xii, 13.

58. Jour. Med. Research, 1909, xx, 175.

Original Articles

PRIMARY CARCINOMA OF THE LIVER

WITH REPORT OF A PATIENT WHO REMAINED WELL OVER TWO YEARS AFTER OPERATION

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Primary carcinoma of the liver is a rare affection. The literature on the subject consists mainly of reports of individual cases and consequent limited experience.

White[1] states that in 11,500 autopsies at Guy's Hospital during the years 1870-93, there were 11 (i. e., about 1 in 1,000) cases of primary carcinoma of the liver, and that but 7 such cases were reported in the Transactions of the Pathological Society of London during twenty sessions.

According to Eggel[2] of Munich, who has studied the subject exhaustively from the standpoint of pathology, primary carcinoma of the liver occurs about once in each 2,000 cases of all fatal ailments coming to autopsy. He tabulates 163 primary cases, of which 117 are described microscopically, 100 being of liver-cell origin and 17 of the bile-duct variety. The others showed metastases or infiltration, malignant in character. Ewing[3] affirms this classification and states that "primary carcinoma of the liver does not necessarily exhibit a single characteristic structure."

Photomicrograph of section of primary carcinoma of liver.

Contrary to formerly accepted views, Eggel's findings establish the frequency of metastases (66 per cent.) from primary hepatic carcinomata and shows their tendency to form tumor thrombi in large vessels. In his cases, metastases involved the following structures singly or in combination: veins (59 times), glands (38 times), lungs (17 times), gall bladder (7 times), kidneys (5 times), bones (4 times), peritoneum (4 times), spleen, pancreas and pleura (twice each), thyroid, esophagus and heart (once each).

William J. and Charles H. Mayo[4] report that clinically primary carcinoma of the liver "appears in several forms: (a) massive development, which involves a large section of the liver and has a well-marked line of differentiation from the sound tissue; (b) infiltrating; (c) nodular growth, usually one primary growth with secondary nodules." This corresponds to Eggel's macroscopic findings, the growth in 104, or 64.6 per cent., of his cases being of the nodular form, 37, or 23 per cent., of the massive type, and 20, or 12 per cent., of the diffuse variety.

ETIOLOGY

Its etiology is obscure. It seems to occur later in life in the primary than in the secondary growths. According to Eggel, the fifth decade is the period of predilection, but cases are recorded at all ages from the third to the seventy-sixth year. There was a history of hereditary carcinoma in 4 of Eggel's cases, of alcoholism in 30, gallstones in 14 and lues in 4. Trauma was apparently a direct factor in 7 cases.

The relation of cirrhosis to carcinoma of the liver is debatable. Some degree of cirrhosis was present in 85.4 per cent. of Eggel's series. There were, however, in the 163 reported cases but 69 which showed well-developed cirrhosis, nearly all of which were of the atrophic type. In these 69 cases there was a history of alcoholism in 30 only and of lues in 2. With our present knowledge of the origin of primary carcinoma in solid viscera it can be stated only that cirrhosis and carcinoma may coexist without causal relation in most cases; cirrhosis may precede or follow the growth, each process developing independently, or the same process that produces the one may cause the other.

Peabody[5] observes that the increase in connective tissue in secondary hepatic carcinomas "is limited to the proximity of the new growth."

SYMPTOMS

The growth may run its course without a single symptom before death, which may be due to a fatal hemorrhage, as in Ewing's case,[3] or to some intercurrent disease. This, however, is exceptional. As a rule, there is disturbance of digestion as the first and almost constant symptom. The clinical histories in 147 of Eggel's cases showed the presence of icterus in 61 per cent., ascites in 58.5 per cent., edema of extremities in 41 per cent., enlarged spleen in 32 per cent., and fever in 14 per cent. Anemia, emaciation and cachexia come on apace. The duration from the appearance of the first symptoms is three or four weeks to two and a half years. In the latter the early symptoms are doubtless due to the cirrhosis, which may argue for this being a precursor of the cancer in certain cases. The average duration after development of the cancer proper is about six months.

DIAGNOSIS

"Diagnosis is difficult and experience fallacious." The symptoms above noted are common to a number of conditions, and the physical signs may lead us astray. Our examination should, therefore, include especially the uterus and adnexa, rectum and colon, as most probable sites of the primary growth. Atrophic cirrhosis may obscure a primary carcinoma, unless it be massive, the liver to physical examination being actually smaller than normal.

1. White, Hale: Allbutt's System of Medicine, 1903.
2. Eggel, Hugo: Beitr. z. path. Anat. u. z. allg. Path. (Ziegler's), 1901, xxx, 506.
3. Ewing, James: Proc. New York Path. Soc., January, 1907.
4. Mayo, William J. and Charles H.: Keen's Surgery, 1908, p. 966.
5. Peabody, G. L., Am. Med., 1904, viii, 320.
6. Keen, W. W.: Pennsylvania Med. Jour., October, 1897, p. 198.

PAINLESS AND PAINFUL ANGINA PECTORIS *

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Eleven years ago I presented[1] a paper to the California Academy of Medicine entitled "Cases of Angina Sine Dolore, Due to Disease of the Right Ventricle." The matter gave rise to some discussion at the time but dropped out of sight until within the last few months when Dr. Jellinek and Dr. Cooper advanced the same idea without being aware of the existence of my earlier contribution. It is possible that further investigation may be encouraged by a report of some of the cases that suggested such a hypothesis, together with conclusions reached from personal observation.

Confusion may be avoided by making the preliminary statement that while all the cases mentioned in this paper are examples of angina sine dolore associated with disease of the right ventricle I must not be understood as asserting that the painless variety is the only form of angina associated with disease of the right heart. Furthermore it is suggested that the painless angina attack is the sudden and temporary failure of a weak or diseased right ventricle, which, for the time, is unable to maintain the pulmonary circulation; while painful angina is due to the sudden obstruction of some part of the coronary circulation, either organic or spasmodic in character. I have suggested that cardiac asthma is an indication of disease of the right ventricle but I do not say that it is limited to cases in which the right ventricle alone is affected; on the contrary it is very frequently found in cases in which both ventricles are involved, as in patients in the last stages of mitral incompetence after failure of compensation has taken place; but the presence of the symptom under such circumstances signifies that the right ventricle is seriously diseased as well as the left.

As the phenomenon of cardiac asthma in relation to diseases of the right ventricle will be more easily studied where it was the only symptom present, the following cases with the reports of the autopsies are presented for consideration.

CASE 1.—A mechanic, aged 24, rather under the average weight, of good habits, complained of pain about the precordia. The family physician failed to find any sign of heart disease and attributed the discomfort to strain caused by playing on the cornet. He therefore forbade the use of the instrument, and prescribed a tonic treatment, under which he improved for several months; but the distress recurred, and on one occasion he had an attack which his friends said was "something like a fainting fit," but he asked for fresh air and appeared to be perfectly conscious. When I saw him soon afterward he appeared to be in his usual health. About thirty-six hours later, while eating supper, he experienced another seizure, which he at once realized to be fatal, and in little more than thirty minutes he died, after showing signs of gradually increasing heart failure. I was not present at the autopsy, but the family physician told me that there was marked fatty degeneration of the right ventricle.

CASE 2.—A lawyer, aged 40, was suffering from intermittent fever which had lasted for several months, and also from an acute orchitis. It was nearly five weeks before he was well enough to be pronounced convalescent. In the hope that it would hasten his recovery, he decided to take a trip east, but, before leaving, he called at my office and asked me to examine his heart, as he had a feeling of oppression over his chest and a constant desire to take a long inspiration. Careful examination of the pulse and chest failed to reveal any signs of disease, and the patient was dismissed with the assurance that it was simply a temporary weakness resulting from his long illness. Next morning I was surprised to learn that he had been found dead in bed. The coroner's autopsy showed the left ventricle to be healthy in every respect; but through the entire thickness of the wall of the right ventricle there was a band of fat nearly one inch in width, and in the cavity of the ventricle there were two white clots, one lozenge-shaped, measuring about one by one and a half inches, and a second, about seven inches long and as thick as a lead pencil, extending from the ventricle into the pulmonary artery. Evidently the streak of fat in the ventricular wall had prevented a complete systole, so that the ventricle never was perfectly emptied, and the clots were permitted to form during his prolonged rest in the recumbent position.

CASE 3.—A merchant, aged 63, suffered with precordial anxiety and slight attacks of dyspnea. The pulse was good and the area of cardiac dulness normal, but there was a slight musical intonation of the second sound in the aortic area, so that instead of the usual "lubb tup," we heard "lubb toomp." There was also slight edema of the feet. The autopsy showed that the left ventricle was healthy, but that there was considerable fatty degeneration of the right ventricle and atheroma at the base of the aorta.

CASE 4.—Another case very similar to the preceding was seen on several occasions in consultation with Dr. Henry Gibbons. The patient was an elderly man and was subject to attacks of cardiac asthma that would come on without any special cause; some occurred in the evening on different occasions when he was quietly seated with the family and others woke him up during the night. The radial pulse was small and quick during the attacks but so surprisingly good between them that we searched for some explanation beyond the cardiac condition. The patient died during a seizure and autopsy showed a degenerated right ventricle.

CASE 5.—A physician, who was present when my original paper was presented to the academy, on many subsequent occasions remarked that he was suffering from painless angina, but as examination failed to reveal any valvular trouble or signs of circulatory weakness, and as the attacks were very transient, much of his distress was attributed to his highly emotional temperament. It was, therefore, with considerable shock that I learned of his sudden death about 3 o'clock in the morning nearly three years later. An autopsy showed atheroma at the root of the aorta, the cardiac muscle in apparently good condition for a man of his years, but the right heart dilated so as to press on the vena azygos and produce a moderate degree of hydrothorax on the right side.

Other cases of cardiac asthma in which autopsy revealed disease of the right ventricle could be reported, but enough have been mentioned to illustrate the frequency with which angina sine dolore and diseased right heart are associated.

The type of breathlessness met under such circumstances is altogether different from ordinary cardiac dyspnea; it is a suffocative paroxysm that may follow exertion or emotion but just as frequently may occur without any evident cause. It does not present the same signs as spasmodic bronchial asthma, as the air enters the lungs freely and there is no indication of obstruction in the bronchi except in those cases in which complete cardiac failure is associated with sudden edema of the lungs or in which the paroxysm comes on as an occasional feature in patients in whom compensation has failed and pulmonary changes have already existed. The attack is simply a paroxysm of air hunger which the patient tries to satisfy by quick and deep inspirations. Instead of the quick forcible inspiration with prolonged expiration that is characteristic of bronchial asthma we have a forcible inspiration with a quick and frequently a gasping expiration. It has not been my experience to find any increase in the ten-

* Read before the San Joaquin County Medical Society, Feb. 26, 1909.

1. Occidental Medical Times, May 1898.

sion of the pulse during these attacks of painless angina; on the contrary it is a rapid pulse, small and of diminished force, but it is frequently a matter of surprise to observe how quickly the pulse will recover after the paroxysm has passed.

In these cases three features were noticed particularly: 1. There were changes in the wall of the right ventricle. 2. During the attack the pulse was small and feeble. 3. After the attack was over and between the various seizures the radial pulse was of good quality. With these facts, the following explanation of the seizure is possible.

The condition to start with is a right ventricle in a state of malnutrition as a result either of defective coronary circulation or of impaired metabolism. Such a muscle has very little reserve force and its assimilative powers are diminished so that it is easily exhausted either by a demand for sudden effort or by any interference with its blood supply. The conditions under which cardiac asthma is most frequently observed, apart from sudden effort to which the heart is unable to respond, are when the patient is resting after mental or physical fatigue, also during the early hours of sleep, and occasionally after a heavy meal or one that is slow of digestion, especially if the patient goes to sleep before digestion is completed. The improved methods for observing blood pressure that have been devised during the last few years show that these are exactly the conditions under which lowering of the aortic and consequently of the coronary blood pressure is sure to be found. All observers are agreed that exertion of any kind at first induces a rise in pressure, but that if prolonged it may ultimately be accompanied and invariably is followed by a fall. Also during the first hours of sleep the pressure is very low and rises gradually toward the time of waking. The results of observations during digestion are somewhat conflicting and possibly depend to some extent on the character of the food and the assimilative powers of the patient. The majority of investigators, however, report a fall during digestion and attribute it to dilatation of the splanchnic area.

Physiologists tell us that muscle fatigue is simply due to the accumulation of the products of activity in the muscle acting as poisons on its protoplasm, and that we must depend on the activity of the circulation for their removal and the reconstruction of the tissues. If, therefore, the coronary circulation becomes depressed in a cardiac muscle that is already deficient in reserve force and recuperative power it need not occasion surprise if at times the muscular contractions are not sufficiently strong to discharge their physiologic function and that corresponding symptoms should manifest themselves. It is important that this should be recognized in regard to treatment because the injudicious use of vasodilators, such as nitroglycerin, will still farther reduce the aortic pressure and aggravate the condition.

If the disease be limited to the right ventricle we can easily understand how the radial pulse improves so rapidly when the seizure is over, but in cases in which the asthma is simply intercurrent on the symptoms of general cardiac disturbance such as failure of compensation in long-standing cases of mitral incompetence such improvement is not found and should not be expected.

It is impossible to explain the absence of angina sine dolore in some cases of dilated or fatty heart, unless it be that sufficient healthy muscular fibers remain to produce a complete systole, or that the exciting causes, such as emotional disturbance and physical or mental strain, have not been out of proportion to the capabilities of the heart. That extensive degeneration may exist without producing any symptoms to awaken suspicions of heart disease is a well-established fact; indeed, we frequently hear that some man, who never was supposed to be the victim of cardiac disturbance, has died suddenly after some strain or excitement, and that autopsy has shown degeneration of the heart muscle. In a number of such cases inquiry will ascertain that death was ushered in by an attack of the peculiar form of dyspnea that has been described as angina sine dolore.

Painless angina is much more common than one would suppose it to be from the infrequency with which it is mentioned; but, in all probability, the disease is not always recognized, and the patient's sufferings are attributed to hysteria or some reflex disturbance. When the symptoms are accompanied by a dilated right heart or distinctly atheromatous changes the diagnosis is easy, but when physical signs are absent it is difficult to arrive at an absolute opinion. If, when free from the paroxysms, the patient continually suffers from a feeling of weight or distress over the precordia, and has a tendency to take occasional deep inspirations, there is a strong probability that the right ventricle is affected: and this amounts to certainty if the symptoms are invariably produced or aggravated by exertion.

This form of angina is entirely different from the painful variety and in many instances demands a diametrically opposite treatment. The cause of angina pectoris is still a matter for discussion, but in all probability it is due to some local obstruction in the coronary circulation which may be organic, spasmodic, or a combination of both. The fact that the radial pulse varies in different cases, the pressure being sometimes high and at other times low, indicates that the attacks can not invariably be attributed to increased resistance in the peripheral circulation. It has been suggested that angina pectoris is due to strain on the heart by obstruction in the arterial system and that while in certain cases the vascular pressure may be actually low, nevertheless it may be too high for the capabilities of the myocardium. I have seen a very large number of patients with weak and dilated hearts who under varying conditions were subjected to considerable increase in peripheral resistance and suffered precordial pain and distress in consequence, but the proportion of those in whom a typical angina attack ensued was infinitesimal. Such an experience leads to the conclusion that the explanation of the symptoms characteristic of angina pectoris must be sought elsewhere than in the condition of the cardiac muscle.

One can hardly witness an attack of angina without thinking of the extreme pain that is produced in other parts of the body as a result of sudden anemia following embolism, vasomotor spasm or some other cause, and this, together with the fact that postmortem examination so frequently shows disease of the coronary arteries, either in their main trunks or in their smaller muscular branches, forcibly suggests the idea that this malady may be due to ischemia from some form of obstruction in the coronary circulation, and that the myocardial changes can be attributed to the same arterial disturbance, the muscular degeneration being an associated lesion but having no causal relation to the

intensely painful seizures. The causes of the obstruction are not the same in every case. It may be that the lumen of the arteriole is narrowed from disease so that under exertion some part of the heart muscle does not obtain a sufficient supply of blood and therefore an ischemia is established; or we may have a rise in blood pressure during which the coronaries participate in the general arterial contraction, but this contraction may be sufficient to obliterate the stream in one of the cardiac branches which is already narrowed by disease. It is perfectly possible that some of the attacks are due to very minute emboli or sclerosis permanently obliterating a small vessel. The rapidity with which in many instances an attack yields to vasodilators such as nitroglycerin or amyl nitrite has for many years warranted the belief that vascular spasm plays a very prominent part in the production of the pain, but the fact that general high blood pressure is present in some cases of angina pectoris, absent in others, and present in a very large number of people who never suffer from angina pectoris inclines me to the belief that spasm of the coronary arteries is the essential feature in producing the attack and that the relief that follows the administration of such substances as nitroglycerin is due to the relaxation of the coronary spasm which would take place independently of any fall in general blood pressure; in short, that in those cases in which the blood pressure is high the pain is due to overcontraction of some coronary branch and not to pressure exerted on the ventricular cavity on account of increased peripheral resistance. Such a hypothesis explains the existence of angina irrespective of high or low blood pressure; it explains those cases, sometimes described as spurious angina, in which patients have suffered from a typical seizure consequent on errors in digestion and metabolism; it explains the improvement in those patients who at one time could not walk across a room without provoking a seizure but who as a result of appropriate treatment are able to walk two or three miles without difficulty.

This local vasomoter spasm is nothing new in medicine. In Raynaud's disease we can observe it in the finger, on the body surface, or on some part where it may persist with such intensity as to terminate in multiple gangrene or pass away and leave the patient with very little evidence of the attack. Transient loss of consciousness and brief hemiplegias in the course of the disease indicate that not even the cerebral vessels are exempt from the spasmodic contraction. It is therefore perfectly possible that similar local spasm may affect the vessels of the heart.

It seems, therefore, that with our present knowledge we are warranted in believing that angina pectoris is due to some form of obstruction in the coronary circulation; that the changes in the peripheral blood pressure are coincidences rather than causes of the attack; and that the degeneration of the cardiac muscle may be the consequence of the impaired coronary supply but not the cause of the painful seizure.

The treatment of those two forms of angina will be entirely different during the seizures, but as a rule it is identical between the paroxysms. Since cardiac asthma is due to failure of the right ventricle rapidly acting stimulants, such as caffein, camphor, or strophanthus, will be indicated for the relief of the paroxysm; while angina pectoris, on account of the coronary spasm, will call for vasodilators such as nitrite of amyl, nitroglycerin or morphin. It not infrequently happens that the subject of coronary spasm is also suffering from a weak heart and under such circumstances a combination of heart stimulant and antispasmodic is demanded.

Between the attacks the treatment is that which has been recommended in cases of chronic myocarditis and arteriosclerosis. The regulation of diet, in regard to both variety and quantity, so that the circulation never will be overloaded with food or waste material, is of the greatest importance. Avoidance of mental and physical strain and the regulation of exercise in accordance with the capabilities of each individual case must be carefully observed. The administration of arsenic and the prolonged use of iodids in small doses for a period of several months will be found in many instances to have a very beneficial effect on both the cardiac muscle and the blood vessels. And last, we never should neglect the judicious use of remedies which will aid in eliminating by their natural channels all toxic substances resulting from physiologic activity or food metabolism.

2605 California Street.

A NEW METHOD FOR THE TRANSFUSION OF BLOOD

AN EXPERIMENTAL STUDY *

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A method of transfusion by means of a vascular bridge, composed of a fresh animal blood vessel, interposed between the artery of the donor and the vein of the recipient, was described in a preliminary communication[1] some months ago. Since then further experiments have been carried out in order to find means of preserving ready for use the vascular bridge, which, for the sake of brevity, will be called simply the "link" throughout the rest of the paper.

It is not our purpose to discuss when and where transfusion is indicated. The future alone can show whether the present enthusiasm is justified, and whether transfusion is here to stay. That, however, direct transfusion is being quite largely practiced is readily seen by the numerous modifications of the technic constantly appearing in the literature, and by a recent discussion held at the meeting of the New York Academy of Medicine, Surgical Section, Jan. 8, 1909. Dr. Hartwell, in connection with a paper he then read[2] on a new method of transfusion by means of direct intubation of the artery into the vein, referred to forty-one cases of transfusion done with the aid of various cannulæ (chiefly by Crile's technic) which he had collected through private communication with eighteen surgeons of New York City. In this series twenty technical failures were recorded. It has been our privilege to witness personally twelve transfusions on the human subject. In all of these the exposure of the artery proved tedious and in some cases difficult, chiefly because of numerous minute side branches which required ligation. If these branches are seen before they are cut

* From the Pathological Laboratory, College of Physicians and Surgeons, Columbia University.

1. Frank: New York Med. Jour., Nov. 28, 1908.
2. Hartwell, John A.: A Simple Method of Blood Transfusion without Cannula, The Journal A. M. A., Jan. 23, 1909, lii, 297; Am. Jour. Surg., March, 1909.

across, ligation is not difficult; if on the other hand, as not infrequently happens, they are torn, annoying bleeding occurs, to stop which it may be necessary to apply lateral ligatures on the artery, thus partly occluding its lumen, either through actual constriction or through the resulting parietal thrombus. Another difficulty is encountered in the choice of the cannula; if it is too small the vessel is constricted, if too large cuffing will prove difficult or impossible. This difficulty is to some extent prevented by the use of either the Elsberg[3] or Levin[4] instrument. Again when the final union of artery and vein is undertaken, the operator is obliged to work in a cramped space at great disadvantage. In consequence of these difficulties it requires from twenty to forty-five minutes to establish union between artery and vein, if everything goes smoothly, while double that length of time is not unusual. Such prolonged exposures necessarily produces contraction of the radial artery with consequent impairment of the flow of blood, and greatly favors clotting, especially if all the safeguards so necessary in vascular surgery are not scrupulously observed.

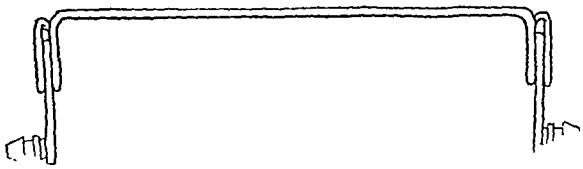

Fig. 1.—Wire frame used to stretch the link during preservation, with cannulæ in position.

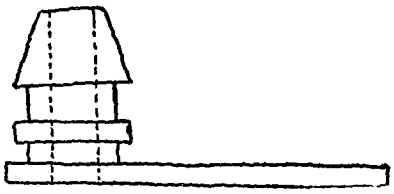

Fig. 2.—Crile cannula slightly modified in shape. The end is more pointed and the grooves for ligatures are farther removed from the opening. This favors easier introduction.

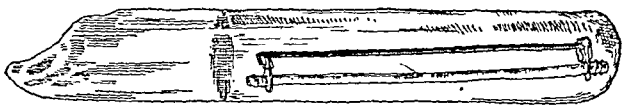

Fig. 3.—Link ready for use, in sealed test-tube, immersed in paraffin oil.

ADVANTAGES OF THE LINK

The use of the link offers the following advantages:

1. A sufficient length of vessel is obtained without extensive dissection of the artery of the donor or the vein of the recipient.

2. The link as now prepared by us has lost some of its elasticity and is well stretched, so as to afford an unobstructed lumen within the cannulæ.

3. The technic is familiar to every surgeon from its similarity to that used in intravenous infusion.

FORMS OF LINKS

1. *Fresh Links.*—The fresh links, as first suggested, required preparation immediately before they were needed, which entailed obtaining a dog of suitable size, aseptic removal of its two carotids, etc. It was also found that unless the carotid fitted the cannula accurately a considerable diminution in caliber was caused by the contraction due to the elastic tunic, which served to shorten and at the same time thicken the vessel wall, thus producing a constriction of greater or lesser degree within the cannula. All these faults are overcome by means of the following method of preparation.

2. *Formalinized Links.*—Fresh carotids are obtained from medium-sized dogs, immediately after death, carefully washed out with cold normal salt solution, and stripped of any surrounding connective tissue. The adventitia at both ends is drawn over the cut end of the artery and snipped off. A Crile, or other tube of appropriate size, is selected, the artery pushed through the tube and by means of two eye forceps cuffed and secured with a fine silk ligature tied in the groove nearest to the handle. The opposite vessel end is similarly cuffed over another Crile tube, care being taken to have the handles pointing approximately in the same direction transverse to the long axis of the link in order to avoid torsion subsequently. The completed link is now stretched and kept stretched by means of a small frame readily improvised of soft brass wire (Fig. 1) which serves to keep the cannula sufficiently far apart to thin the walls of the link and thus afford a wide lumen within the cannula. The tension should not be so excessive as to flatten the link at its central portion.

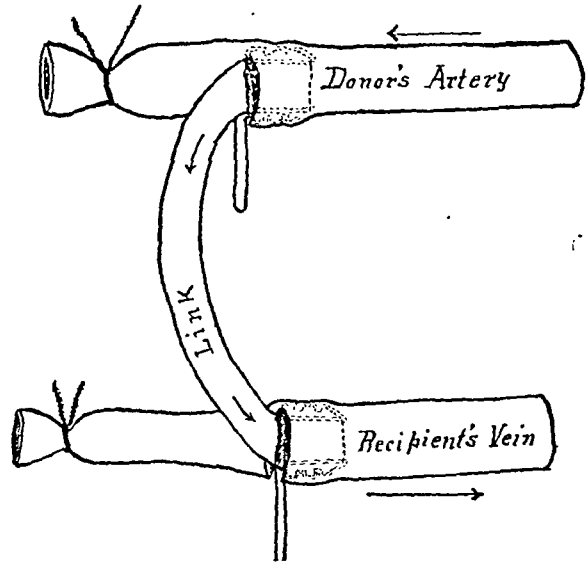

Fig. 4.—Schema of transfusion.

All the steps just enumerated may be taken without aseptic precautions. The link, stretched on its wire frame, is now placed in a wide test-tube, containing freshly prepared formalin of 2 per cent. strength (2 c.c. of chemically pure formalin of 40 per cent., in 98 c.c. of water) and well stoppered with a thick cotton plug. After twenty-four hours, using the usual bacteriologic technic, to avoid contamination, the link is transferred into a tube of sterile normal salt solution and after one-half to one hour transferred to a similar tube for the same period. These two changes serves to remove any excess of formalin, which if left, in time renders the links brittle and useless. Finally, the link is preserved for future use in sterile paraffin oil, the end of the test-tube being sealed with a blow-pipe flame (Fig. 3). The method of preservation serves to impair the resiliency of the link sufficiently to keep the lumen well open and to increase the distance between the cannula permanently, even after the wire frame is

3. Elsberg, Charles A.: A Simple Cannula for the Direct Transfusion of Blood, THE JOURNAL A. M. A., March 13, 1909, lii, 887.
4. Levin: New York Med. Jour., Oct. 3, 1908.

removed. The optimum time in formalin has been found to be twenty-four hours, but fairly effective links were obtained up to forty-eight hours. Links used direct from the formalin, or from the salt solution produces no clotting, showing that the paraffin oil is not essential. This fluid was chosen because it helps to soften the tissues, is bland, and later proves useful at the transfusion. Links kept by this method for ninety days were pliable and as elastic as thin rubber tubing.[5]

3. *Dried Links.*—We have lately tried another method of preserving the links, suggested by Dr. Carrel.[6] As applied to our work the steps enumerated in obtaining and preparing the links are the same as those previously described up to that of the placing them in the formalin solution, except that the fresh link should not be as tightly stretched. Instead of being placed in formalin the link is dried for twenty-four to forty-eight hours over fresh anhydrous calcium chlorid in the ordinary chemical drying chamber. By this time it looks dry, shriveled and brittle as parchment. It is now placed in a sterile test-tube and heated for twelve to fifteen minutes at 100 to 105 C in the dry sterilizer. The tube is then sealed. About an hour and a half before the dried link is to be used it is placed in sterile salt solution or Lock's fluid. At the expiration of that time it will have regained its normal appearance and elasticity. This method has proved excellent and has but one drawback, namely, that the great elasticity of the vessel serves partially to occlude the lumen inside the cannula, as is the case with freshly obtained vessels.

4. *Glass Tubes.*—Before describing the application of the links, it may prove of interest to mention that during the course of the experiments we attempted to use glass tubes, carefully coated inside and out with hard paraffin. In only one instance out of five did clotting fail to occur within twelve to seventeen minutes. Dr. Alexis Carrel, in a private communication, informed us that he also found glass tubes unreliable for the same reason.

The appended summary of experiments shows that of twenty-six transfusions performed with prepared links, but one failed. In this instance (experiment 15) the link had been kinked during preparation and therefore did not permit the blood to pass through at all.[7] It is now our custom to test the permeability of the link before using, by means of a small syringe filled with salt solution, in order to assure ourselves that the lumen is unobstructed and in order to wash out the paraffin oil. To favor clotting, the blood current was repeatedly interrupted. In two experiments, links inserted in the carotid artery were tied off and the blood allowed to remain within the lumen of the link for fifteen and thirty minutes without resulting thrombus formation.

EXPERIMENTS IN USE OF VASCULAR LINK FOR TRANSFUSION OF BLOOD

Experiment.	Method of Preparation of Link.	Days Kept.	Duration of Transfusion. Min.	Results and Remarks.
1	Fresh.	0	45	Good.
2	Fresh.	0	45	Good.
3	Fresh.	0	45	Good.
4	Fresh.	0	45	Good.
5	Fresh.	0	30	Good.
6	Fresh. Kept at 33 C. in NaCl solution.	10	45	Good
7	Fresh. Kept at 33 C. in NaCl solution.	7	45	Good.
8	Fresh. Kept in paraffin oil at room temperature.	14	25	Good.
9	Fresh. Kept in paraffin oil at room temperature.	14	25	Good.
10	Fresh rabbit's aorta used on dog.	0	60	Good.
11	In 2 per cent. formalin ½ hour. Kept in oil.	3	60	Good.
12	In 2 per cent. formalin ½ hour. Kept in oil.	7	35	Good.
13	In 2 per cent. formalin 2½ hours. Kept in oil.	11	35	Good.
14	In 2 per cent. formalin 24 hours. Kept in oil.	60	35	Good.
15	In 2 per cent. formalin 48 hours. Kept in oil.	20	..	Lumen not patent.
16	In 2 per cent. formalin 36 hours. Kept in oil.	20	30	Good.
17	In 2 per cent. formalin 36 hours. Kept in oil.	20	35	Good.
18	In 2 per cent. formalin 48 hours. Kept in oil.	60	35	Good.
19	In 2 per cent. formalin 48 hours. Kept in oil.	12	30	Good.
20	In 2 per cent. formalin 24 hours; 2 changes of NaCl solution. Kept in oil.	19	30	Good.
21	In 2 per cent. formalin 24 hours; 2 changes of NaCl solution. Kept in oil.	19	30	Good.
22	In 2 per cent. formalin 24 hours; 2 changes of NaCl solution. Kept in oil.	19	30	Good.
23	In 2 per cent. formalin 24 hours; 2 changes of NaCl solution. Kept in oil.	23	30	Good.
24	In 2 per cent. formalin 24 hours; 2 changes of NaCl solution. Kept in oil.	90	30	Good.
25	In 2 per cent. formalin 48 hours; 2 changes of NaCl solution. Kept in NaCl sol.	15	30	Good.
26	In 2 per cent. formalin 2½ hours; 2 changes of NaCl solution. Kept in NaCl sol.	14	20	Good.
27	In 2 per cent. formalin 48 hours. Kept in NaCl.	14	35	Good.
28	In 4 per cent. formalin 48 hours. Kept in oil.	5	35	Good.
29	In 4 per cent. formalin 19 days; used direct from formalin.	19	15	Clotted after 15 minutes.
30	In 2 per cent formalin 10 days; used direct from formalin.	10	30	Good.
31	In 2 per cent. formalin 48 hours. Kept in oil.	12	30	Good. Tied off, no clotting.
32	Dried 24 hours, heated 12 minutes at 100 C. Kept sealed.	5	40	Good.
33	Dried 48 hours, heated 15 minutes at 100 C. Kept sealed.	5	30	Good.
34	Dried 48 hours, heated 15 minutes at 105 C. Kept sealed.	3	30	Good.
35	Dried 48 hours, heated 15 minutes at 105 C. Kept sealed.	60	30	Good.
36	Dried 48 hours, heated 15 minutes at 105 C. Kept sealed.	60	30	Good. Cat's carotid used on dog.
37	Dried 24 hours, heated 12 minutes at 105 C. Kept sealed.	5	30	Good. Tied off, no clotting.
38	Glass tube coated with paraffin oil.			Clotted in 5 minutes.
39	Glass tube coated with hard paraffin inside and out.		20	Ran fairly well.
40	Glass tube coated with hard paraffin inside and out.			Clotted in 17 minutes; ran poorly after 5 minutes.
41	Glass tube coated with hard paraffin inside and out.			Clotted in 15 minutes; ran poorly after 5 minutes.
42	Glass tube coated with hard paraffin inside and out.			Clotted in 15 minutes; ran poorly after 10 minutes.
43	Dog's carotid, formalin 2 per cent. for 2 hours; oil 10 days; in Arnold steam sterilizer 30 minutes.			Lumen not patent, shrunken and distorted.

TECHNIC OF TRANSFUSION BY THE USE OF VASCULAR LINKS

About one inch of the artery of the donor, in man the radial, is exposed under local infiltration anesthesia without the use of adrenalin), no great care being exercised in freeing the vessel from its sheath. Two

5. It has been found necessary to have both the cannulæ of the wire frame gold-plated (silver-plated might do as well), as an electrolytic reaction is set up, if two different metals are used, which causes a deposit of copper on the surface of the link, thus favoring clotting.

6. Carrel: Proc. Phil. Soc. Philadelphia, Nov. 6, 1908.

7. An attempt to sterilize a link in the Arnold sterilizer proved a failure. In one experiment in which the link was kept for nineteen days in 4 per cent. formalin and used direct from this, clotting occurred.

ligatures are passed around the artery, the distal one being applied as far peripheral as possible and tied, the proximal left loose. A vein of fair size in the recipient is similarly exposed (in infants the femoral must be used), and the ligatures passed, the distal one again being tied. On both artery and vein a serre-fine is applied proximal to the loose ligature in order to stop the circulation temporarily.

The link is emptied of the paraffin oil and placed in salt solution to be ready for use. The artery is pulled out of the wound by means of the ligature and with a snip of the scissors a small transverse slit is made into its lumen. The edges of the slit are grasped on either side with two fine eye forceps and drawn apart. Through this aperture the one end of the cuffed link is introduced toward the heart (the handle of the cannula being steadied with an artery forceps) and the loose ligature tied in the first groove of the cannula. The vein is treated similarly, the opposite end of the link being inserted toward the heart, and the ligature tied. (It is well to make the slit in the vein near the distal angle of the skin wound in order to have a portion of the vein visible and palpable, as this enables the operator to see and feel the pulsation and thus control the transfusion, or at once to recognize a stoppage of the flow.) The serre-fines are now removed, the one on the vein first, and the exchange of blood allowed to proceed (Fig. 4). Throughout the manipulation both wounds should be kept well moistened with salt solution. During the transfusion the link should be supported by a gauze sponge saturated in salt solution and covered by another moist compress.

When enough blood has been obtained both artery and vein are tied off, the small injured part of the vessels being excised. The skin wound is then closed.

This technic closely resembles that so familiar in intravenous saline infusion, the infusion cannula being represented by the cuffed link. Should the opening in the artery prove too small, a very fine blunt artery forceps or scissors may be inserted closed, and then opened in order to stretch the lumen.

For adults, carotids obtained from medium-sized dogs should prove the proper size, as they are easily cuffed on the large or medium Crile tube. If a smaller cannula is desired, a cat's carotid is available, though of course much shorter in length. The stretched dog's vessel is three and one-half to four inches in length, the cat's half that. The hypothesis that clotting is due to an alien blood vessel has been disproved by the work of numerous investigators. We also have used rabbits' and cats' vessels on dogs with complete success.

TESTS OF THE STERILITY OF PREPARED LINKS

A series of links were prepared, without aseptic precautions and immersed for two to eight hours in 2 per cent. and 4 per cent. formalin. This entire series proved sterile. A similar series of links were infected with the spore-bearing *Bacillus anthracoides,* incubated for forty-eight hours, immersed for one to thirty-six hours in 2 per cent. formalin and then tested after thorough removal of the formalin. No growth took place in the tubes subjected to formalin for more than ten hours. Numerous control experiments showed abundant growth.

SUMMARY

1. The links are prepared by cuffing dog's carotids at both ends over Crile's tubes, stretching them on a wire frame and fixing them for twenty-four hours in 2 per cent formalin. The formalin is removed by two changes of sterile salt solution (thirty to sixty minutes each), and the links permanently preserved in sterile paraffin oil.

2. Of twenty-six transfusions performed by means of prepared links, but one failed (owing to kinking of the vessel during its preservation).

3. The method of preservation kills bacteria, including spore-bearers.

4. The technic if transfusion corresponds closely to that used in intravenous saline infusions.

As far as can be predicted, the use of the prepared links affords a simpler and easier method than those hitherto described, and it is hoped that it will soon receive trial on the human subject.[8]

In conclusion we desire to express our obligations to Dr. T. Mitchell Prudden for extending to us the courtesies of the laboratory, to Dr. Carrel for his kindness in permitting us to use his method of preparing vessels before he had published it, to Dr. H. Zinzer for supplying us with test cultures, and to Dr. Simons for assistance in the bacteriologic tests.

983 Park Ave.

THE INCUNABULA IN THE SENN COLLECTION AT THE JOHN CRERAR LIBRARY *

AKSEL G. S. JOSEPHSON
Cataloguer, the John Crerar Library
CHICAGO

The most interesting part of the Senn collection is undoubtedly the library of Professor Wilhelm Baum, of Göttingen, which Dr. Senn purchased at auction in 1885. Professor Baum was one of the most learned surgeons of his time and exercised a wide influence on succeeding generations of students and physicians, both as a teacher and practical surgeon, although he wrote practically nothing after receiving his degree in 1822. From 1829 to 1842 he was the head of the city hospital in Dantzig, and from 1842 to 1875 held positions as professor of surgery, first at Greifswald, afterward at Göttingen. After his retirement in 1875 he spent his leisure in collecting material for a history of surgery, though he never came so far as to write any part of it. Dr. Baum was a book collector all his life, and he placed his library most generously at the disposal of other students; it is a working scholar's library, not a bibliophile's; there are no tall copies in it, no books printed

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8. Through the kindness of Dr. A. V. Moschcowitz we have recently had the opportunity of performing a transfusion on a human being by our method. Technically the operation was as simple as when performed on animals. The blood ran freely for six minutes and then ceased to flow. During this short time the hemoglobin rose from below 10 per cent. on the Sahli scale to 20 per cent.; next day it was found to be 27 per cent.

From this single trial we have learned that the method proposed is as devoid of danger as other methods. We have found that a cannula corresponding to the outside diameter of the radial artery is readily introduced into this elastic vessel, and that the link may be advantageously reduced to a length of two or two and a half inches.

The stoppage of the flow was due to a small clot at the venous end of the link, within the vein; for when the cannula was withdrawn from the vein, the blood spurted freely through the link. The only partial success of the trial was, in our opinion, due to the deposit of a copper salt on the surface of the link. This may be avoided (as mentioned in Note 5) by using cannulæ and wire frame both gold-plated.

* Read at a regular meeting of the staff of the John Crerar Library, March 24, 1909; also at the annual meeting of the Chicago Chapter of the Bibliographical Society of America, April 29, 1909. The historical data in this paper have been taken chiefly from Puschmann's "Handbuch der Geschichte der Medicin," Gurlt's "Geschichte der Chirurgie," and Sudhoff's "Tradition und Naturbetrachtung in den Illustrationen medizinischer Handschriften und Frühdrucke."

on vellum, comparatively few remarkable for rarity. The auction catalogue contains over 3,000 numbers, of which 894 come under the head of surgery, 434 under pathology, 270 under anatomy, physiology, etc., 122 under history and bibliography. Early medical and surgical writers are very largely represented, both in early and modern editions; the catalogue contains under this head about 600 numbers, and 15 or 16 of these were printed in the fifteenth century.

The object of the earliest printers was to reproduce manuscripts. If we keep this in mind, we shall better understand two peculiarities in which the incunabula and other early printed books differ from those of more modern times. It had not been the custom of the scribes to use a whole sheet of paper or vellum for a title-page; the material was much too expensive for such waste; and they were not in the habit of signing their names at the end of the manuscripts. The development of the title-page in the early printed books is an interesting chapter, but it would carry us too far to go into that subject now; as to the adding of the printer's name at the end of the book, in the colophon, I only wish to call attention to the fact that, while the scribe did not put his name at the end of the manuscript, the rubricator did, and the first book that contains in the colophon the name of its printer, the celebrated 1457 Psalterium, is particularly remarkable for its beautiful illuminated initials which were not painted by hand, but printed in colors from type, and to this fact the printers, Johann Fust and Peter Schöffer, call particular attention in the colophon.

The oldest book in Dr. Baum's library was printed in 1487, in Venice, by Baptista de Tortis. It has no title-page, nor is there anywhere in the book an indication of what its title might be; the first page is blank, the second contains the table of contents, which fills the whole page. The third page begins: "Incipit isagoge Joannitii ad tegni Galieni," i. e., "Here begins Johannitius' introduction to Galen's Microtechne," which latter is the first work contained in the volume. As a matter of fact, the volume is a collection of medical treatises, translated from the Greek into Arabic by the above-mentioned Johannitius, or Hunain ibn Ishāk, and from Arabic into Latin by Gherardo of Cremona. Other editions of the collection give it the title "Articella." Hunain ibn Ishāk was the most famous of those Arabic translators who did so much to preserve Greek literature during the middle ages. He was born in the year 809 and studied under the celebrated Mesuë in Bagdad, in which city he, after having spent some years in travel, settled as physician to the khalif; the latter encouraged him particularly in his translating the works of Greek medical writers into Arabic.

Bound with "Articella" is a copy of Avicenna's "De anima," the only edition of this work that was printed alone in the fifteenth century; the date of printing is not given, but it is probable that it was printed about the same time as the "Articella"; the printer was Antonio Carcano of Pavia. The two books are bound together in wooden boards covered by pressed leather with metal corners and clasps, though the main parts of the clasps have been broken off. On the outside of the front cover is a piece of vellum pasted on to it, with the inscription in medieval hand: "Articella Avicenna de anima."

An editio princeps of interest is the 1492 edition of John of Gaddesden's "Rosa Anglica," printed also in Pavia, by Leonardo Gerla, for Giovanni Antonio Birreta, whose mark we find on the last page. It was the 1502 edition of this book that, on account of its somewhat peculiar, though perfectly correct imprint date, caused some bibliographers and librarians to record an edition of 1516, as Mr. B. A. Finney has told.[1] The author of this book is mentioned in Chaucer's "Canterbury Tales," and it has been suggested, it would seem with good reason, that he was the model for the "doctour of phisicke" of whom Chaucer says that "in all this world ne was ther none him like"; he was certainly one of the best known medical men of his time, and his book supplies much information as to medical practice and custom during the fourteenth century.

A book that is of interest on account of its publisher, as well as the author of the first work printed in it, is a collection of surgical treatises, beginning with Guy de Chauliac's "Chirurgia magna," or, as the author himself called it, "Collectorium artis chirurgicalis medicinæ." Guy de Chauliac was, from the year 1342 to his death, some time in the decade beginning 1360, physician to the popes in Avignon and a friend of Petrarch, though the latter otherwise was not favorably inclined toward the medical profession, and particularly not friendly to the physicians attached to the papal court. The "Collectorium" is, as its name implies, a compilation, but is of more value than most books of its kind and time, and served as a text-book of surgery as late as in the eighteenth century; the introductory chapter contains a short history of surgery, and we find also in the work an eye-witness' account of the Black Death which ravaged Avignon during his residence there. In this book we have an example of an embryonic title-page which briefly enumerates the titles of the work contained in it. It is printed by Simon of Lovere in Venice, in 1499, for Andrea Torresano, whose daughter Maria this same year married the elder Aldus Manutius; after Aldus' death and during the minority of his sons, Torresano was the manager of the Aldine press. This copy has a beautifully illuminated initial on the first page and a miniature in the margin of the same page.

Giovanni Michele Savonarola, grandfather of Girolamo Savonarola, is the author of two books bound together in pressed pig skin. He was born in Padua, where he received his degree of Doctor of Medicine and later became professor at the university. His "Practica de ægritudinis," the book bound first in the volume (the second being his "Canonica"), is a general handbook of medicine, based on his observations and experience, and is regarded as one of the best medical works that have come down to us from the middle ages. Both of these books were printed by Bonetus Locatellus for the publisher, Octavianus Scotus.

Two other books were issued by the same printer and publisher—the "Practica" of Yuhanna ibn Sarapion, a Syrian, by some called Janus Damascenus, but not to be confused with the elder Mesuë, who is also known by that name; and Pietro di Argellata's "Chirurgia," in which the author, who was professor at Bologna, quite frankly acknowledges mistakes in his practice and discusses them as warnings to his students.

Another printing-press in Venice which is represented here is that of the brothers Giovanni and Gregorio di Gregorii, from which several medical works were issued, both during the fifteenth century and the beginning of the sixteenth. Four books under consid-

1. Papers and Proc. Bibliograph. Soc. of America, I, 71-74. Also Dock, George: Janus, Harlem, 1907, xii, 425-435.

eration were printed by them: Alessandro Benedetti's "Collectiones medicinæ," a small pamphlet without place, date or printer and by Mlle. Pellechet ascribed to Aldus, though Robert Proctor has since shown that the book was printed from types that belonged to the Gregorii; Bernard de Gordon's "Lilium medicinæ," highly valued for its clearness and conciseness, and which gives a good idea of the standpoint of medicine in the thirteenth century; its author was professor at Montpellier from 1285 and dictated the present work to his students in the year 1305; the book has a wood cut on the title-page to the index, that to the work itself being quite plain.

"Theicrisi," or "Altheisir," is the title of the third book in this group; it has for its author Avenzohar, the latest of the great Arabian physicians.

The fourth book, called "Fasciculum Medicine," is of interest on account of its illustrations, which are the earliest examples of anatomic drawings reproduced in wood cuts, though the present edition, printed in 1500, is not the first (the first edition was printed in 1491); the author of the book, Johannes Ketham, was a German physician, living in Italy, but of whom nothing further is known; it should be said, though, that the illustrations are not original with him; some of them are of interest for the student of the history of costume and furniture.

Mondino da Luzzi's "Anathomia" is one of the three books in the collection that were printed in Germany. It has neither place, date nor name of printer, but it was printed with the same types with which Martin Landsberg printed in Leipsic after 1492, and has, therefore, been assigned to this printer; it was printed before 1500. Mondino was the first anatomist since the time of the Ptolemys to dissect human bodies, and his book was intended as a handbook for anatomic exercises. From 1290 to his death in 1326 he was a teacher at the university of Bologna.

The other two books printed in Germany are bound together; they are not medical in character, though one of them, Bartholomæus Anglicus (or Glanvilla's) encyclopedia, "De proprietatibus rerum," contains a good deal of medical information. It was printed with types used by a printer in Heidelberg whose name is not known, but who is commonly spoken of as "the printer of 'Lindelbach,'" after the title of one of his books. The work bound together with this, Werner von Rolewinck's "Fasciculum temporum," was one of the most popular books of its time. Leo Baer, in his work, "Die illustrierten Historienbücher des 15. Jahrhunderts," enumerates not less than thirty-four editions of it printed before the year 1501; the first two editions were printed in the same year, 1474, both in Cologne, but by different printers; the present edition is one of several printed by Johannes Prüss in Strassburg in the decade beginning 1490; but it does not bear his name nor is it dated. The author of this work was a Carthusian friar and inmate of the St. Barbara monastery in Cologne, where he died in 1502, 77 years of age. He was the author of several books, both historical and theological.

One volume still remains to be mentioned, though it is likely that it should not have been classed among the incunabula. It is an anonymous edition of the "Regimen Sanitatis Salernitanum," with Arnoldus de Villanova's commentary, a versified essay on hygiene prepared by the physicians connected with the famous school of Salerno for the benefit of Duke Robert of Normandy, who in 1096 visited his relative, Duke Ruggiero of Salerno, on his way to take part in the first crusade. Hain, Mlle. Pellechet and other bibliographers count this edition among incunabula, but Robert Proctor does not include it in the first part of his "Index to Early Printed Books in the British Museum," but merely refers to it as being "not fifteenth century." For my part, I have not been able to come to any definite conclusion, but have followed the lead of the majority in assigning to it tentatively the date 1500; I may say, however, that I have not been able to identify the type with which it is printed with any of those described in Haebler's "Typenrepertorium der Wiegendrucke"; when the section for Italy of the second part of Proctor's "Index" appears we shall probably be able to determine the date of the book; it is also probable that a closer study of the wood cut on the title-page will help to solve the problem.

STREPTOCOCCIC INFECTIONS OF THE THROAT *

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During the past few months a great deal of attention has been attracted to the subject of streptococcic infections of the throat, and there have been two contributions to the literature of the subject which are of more than ordinary interest. At the Chicago meeting of the American Medical Association last June, Dr. Alice G. Bryant, of Boston, read a paper[1] describing a series of cases in which the infection fastened on the so-called adenoid tissue found in the pharynx, and in which there were marked symptoms of infection, with temperature ranging from the neighborhood of 100 to 104 F., and at times a free discharge from the nose of a creamy consistency, masses of adenoid tissue sometimes being found in this discharge. Bacteriologic examination of the discharge in the cases reported by Dr. Bryant showed streptococci in abundance.

By far the most interesting article that I have seen on the subject, however, is that by J. O. Hollick,[2] Medical Officer to the Midland Counties (England) Idiot Asylum, in which is reported an epidemic of streptococcic or "septic" throats which prevailed in the asylum during April of last year, also a similar epidemic in his private practice. The first outbreak was thought to be due to the Klebs-Loeffler bacillus, but bacteriologic examination showed an absence of diphtheria and diphtheroid bacilli, with a plentiful growth of both streptococci and staphylococci. The epidemic occurred first among the nursing staff, and then spread to a number of the inmates. The general symptoms are summarized by Hollick as follows: malaise and pains in the back and neck were prominent, and violent headache in a few cases; no vomiting or other abdominal symptoms. Evening temperature often rose to 104, morning temperature 100 Fahrenheit. Slight soreness existed on one or both sides of the throat and difficulty in swallowing; the submaxillary and glands adjacent to the angle of the jaw and in the triangles of neck enlarged and tender. One or both tonsils showed creamy

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* Read before the Memphis and Shelby County Medical Society, March 2, 1909.

1. Streptococcic Infections of the Pharyngeal Adenoid Tissue in Adults. THE JOURNAL A. M. A., June 13, 1908, l, 1963.

2. Lancet, London, Dec. 19, 1908

white secretion, with angry-looking areola of inflammation extending to the anterior pillar of the fauces, and the uvula was often swollen and intensely edematous. There were no points of follicular exudation on tonsils. Urine febrile, and in some cases slight traces of albumin. The exudation rarely extended beyond the anterior pillars of the fauces to the front, or beyond the posterior pillars behind, but much mucopurulent secretion was observed to exude from the lymphoid follicles over the vault of the pharynx, and signs of nasal obstruction pointing to a general engorgement of the lymphoid tissue around the posterior nares and extending through the nares anteriorly were often evident. The exudate in no case extended over the soft palate or uvula. In from two to four days, according to the severity of the infection, the symptoms and local signs decreased, glandular swelling and tenderness remaining for some days or weeks after clearing up of the other symptoms. A tendency to relapse was shown in several cases after subsidence of the temperature.

No sooner had this epidemic abated than one of a similar but severer character occurred in Hollick's practice at a private preparatory school in the same neighborhood. There was a history, before the beginning of the epidemic, of one boy returning to school who had had a sore throat which had imperfectly cleared up. In two or three weeks later a boy was seized with convulsions, and when Hollick saw him after the abatement of the seizure, his temperature was 103 F.; he complained of no sore throat, but his cervical glands were enlarged and tender. When seen next day he had a creamy secretion over both tonsils, but not extending onto the palate, uvula, or faucial pillars. There was much angry congestion over the latter, and he now complained of much difficulty and pain on swallowing. Four other boys on this day were put to bed with rise of temperature, tenderness over the cervical glands, headache, malaise, and some pain on one or both sides on swallowing. One of these showed much cervical glandular enlargement and had a more suspicious look about his fauces and tonsils than the rest. A swab from his throat showed Klebs-Loeffler bacilli. He was treated with 4,000 units of antitoxin. It proved to be a severe case of diphtheria of the fauces and nares, with marked heart and kidney trouble, and the patient succumbed fourteen days after onset of symptoms of cardiac failure.

Swabs from other throats showed Hoffman's diplococci and streptococci but no diphtheria bacilli. Boys fell down like ninepins, says Hollick; in all thirty cases developed, but only in one other of these was the specific bacillus found, this case proving, however, to be very mild.

Hollick calls attention to the well-understood possibility of a "diphtheritic" supervening on or accompanying a "diphtheroid" infection, or of a streptococcal infection going hand and hand with both and gaining sometimes the upper hand.

My reason for quoting so freely from Hollick's article is that he very accurately describes a condition which has prevailed during the past winter to no little extent in Memphis, and also in the surrounding country, and because his experience has been similar to a recent one of mine.

Recently I have had a number of cases of mixed streptococcic infection of the throat to deal with, and the severity of the symptoms in these cases has at times corresponded with some of the cases reported by Hollick. I shall here report more or less in detail some of the cases that have come under my observation.

Case 1.—*History.*—Lavina M., aged 7, seen through the courtesy of Dr. J. A. Crisler, of this city, was brought to my office on November 1, 1908, with a history of having had a severe headache and fever about a week before, since which time her nose had been stopped up and she was unable to breathe through it at all, especially at night. She had been complaining of sore throat for several days, and the mother stated that while she had no thermometer, she was convinced that the child had been having fever. In the meantime, distressing to relate, the child had been going to school.

Examination.—This revealed a confluent pseudomembrane on both faucial tonsils, and extending back onto the pharynx, involving the lateral pillars. Both nares also were filled with this pseudomembrane. There was considerable glandular enlargement on each side of the neck. There was no elevation of temperature (axilla). On removal of portions of the pseudomembrane from the tonsils and pharynx a bleeding surface was left. Swabs and pieces of membrane were immediately taken from the throat and also from the nose, and culture tubes inoculated. Repeated examinations made from these tubes revealed no diphtheria bacilli, but streptococci were found in abundance associated with staphylococci.

I did not see the child again, but heard later that she was entirely well.

As an infection-carrier this patient certainly was a good example, and the anomalous condition of a pseudomembrane, but no diphtheria, was present.

Case 2.—*History.*—Charles M., aged 12, was seen by me at his home Dec. 30, 1908. The child had a sore throat and headache, with high fever, for a day or two, accompanied by a purulent discharge from both nares. There was a very disagreeable odor to the nasal discharge, which was detected immediately on entering the room.

Examination.—The boy's throat showed a creamy exudate on either tonsil, without any extension to the soft palate or pharynx. There was a similar creamy discharge from both nares. There was no membrane whatsoever. The submaxillary glands on both sides were considerably enlarged. Temperature at this time was 101.4 F., pulse 102 and very full.

Course of Disease.—The opinion expressed by me to the boy's mother was that the case was very suspicious of faucial and nasal diphtheria, and instructions given to isolate the patient. The next morning at 9 o'clock the temperature was 99, pulse 90, and the child much better. Convalescence was uninterrupted. Cultures made from swabs taken from both nose and throat revealed almost pure streptococci, diphtheria bacilli not being found on repeated examinations.

Case 3.—Corinne M., aged 5, sister of previous patient, developed a sore throat, running nose and considerable fever January 9.

Examination.—When seen by me on the 10th the faucial tonsils showed some creamy exudate, with no extension from the tonsils, temperature 102 F., and some enlargement of the submaxillary glands. There was also the same discharge from nares as seen in the previous case, accompanied by the same odor. Swabs were immediately taken from the nose and throat. When the patient was seen next morning the temperature was the same—102 F., pulse 104, and submaxillary glands somewhat more swollen. Bacteriologic examination of spreads from cultures showed a mixed infection of streptococci and staphylococci, the former in great majority, no Klebs-Loeffler bacilli being found in the cultures grown from the swabs taken from either the nose or the throat. On this second morning I suggested antitoxin, but the mother was prejudiced against this agent, saying that she was more afraid of antitoxin than diphtheria, and despite some suspicious symptoms at this time, I did not feel that in the face of this prejudice and the negative bacteriologic report I should urge the use of the serum. Inasmuch as I was very suspicious of the condition of this second child, I repeatedly called for reports from the cultures, but frequent examinations, and these made by several competent physicians, failed to reveal Klebs-Loeffler bacilli.

Course of Disease—The next morning the child's temperature was normal, pulse 102 The following morning the mother telephoned me that the temperature was 102 and in the afternoon 100 F At 8 o clock in the evening the child began to bleed freely from the right naris, and after ineffectual attempts on the part of the mother to control this I was called and reached the house at 11 o clock I soon succeeded in controlling the hemorrhage, which I judged was septic in character The next day, the 13th, not being satisfied with the condition presenting, I again asked for a bacteriologic report, and was told then that a few Klebs Loeffler bacilli could be found in one of the cultures The child was immediately given 5,000 units of antitoxin and such supportive treatment as was regarded necessary The urine was found to contain considerable albumin The morning of the 15th 3,000 units more of antitoxin were given Temperature at this time (rectal) was 101 6 F, and pulse 76 The child raised herself up about 12 o'clock that day, collapsed and died

CASE 4—Miriam M, aged 14, schoolgirl, sister of the previous two patients, developed sore throat and temperature of 102 F the night of January 14 The next morning a creamy exudate was found on both tonsils, with considerable faucial congestion but no extension to surrounding parts The exudate on the tonsils in this as in the previous cases, had nothing characteristic of diphtheria about it Five hundred units of antitoxin had been given the child the night before, and 3,000 units additional were now given her There was no nasal discharge Cultures from the child's throat showed an abundance of streptococci with some staphylococci, but positively no diphtheria bacilli Swabs were taken morning and evening, thus giving a control There was no albumin in the urine

This case ran practically the same course as that of the boy Charles, who had received no antitoxin, and this patient (Miriam M) was apparently free from the effects of the disease forty-eight hours afterward Repeated examinations of the cultures grown in this case made by several competent men showed an entire absence of diphtheria bacilli

This series of cases in one family had some very peculiar features Every effort was made to ascertain the presence of diphtheria bacilli, and the cultures were made from swabs vigorously rubbed over the exudate in all the cases, and grown on Loeffler's blood serum mixture Dr. B W Fontaine, who very kindly grew the cultures and made the bacteriologic examinations in his laboratory, was not contented merely with his examinations, but had several other men to study the slides with him The case last reported ran the same course as that of the first case in the family, and the antitoxin could not be said to have exerted any influence on the course of the disease, for the duration of this case was no shorter than that of the boy who was not given antitoxin In the case of the child who died, there was an entire abatement of the symptoms for one day, and it seems as though in this case the mixed infection here presented was characterized by an inhibition of the growth and effects of the diphtheria bacilli due to the preponderance of streptococci This has been observed in other cases, and it has been my experience, and I am sure that of others that where we have this virulent type of mixed infection a fatal termination is almost inevitable, and antitoxin given even in the earliest stages lacks the potency which seems to be associated with its use in infections with the pure Klebs-Loeffler bacillus Kyle[3] says, "The presence of streptococci, in addition to the *Bacillus diphtheriæ*, augurs ill for the patient because to their effects are due the complications of the more malignant character" The fatal termination in this case was probably further assured by the violent septic hemorrhage which doubtless weakened the child considerably, although this was not shown by the condition of her pulse the next day. Considering the readiness with which diphtheria bacilli are grown on proper culture media, the ease with which they are isolated, and also the repeated examinations of the cultures in these cases, there could be no question of faulty technic causing failure to find the specific bacillus in those cases here reported as failing to reveal this Furthermore, there was nothing characteristic of diphtheria in the tonsillar exudate, and the clinical course of the disease in all but the fatal case was unusually short, while the temperature ran much higher than commonly is found in diphtheria, and in none of these cases was there any membrane whatsoever, nor extension from the tonsils, features diagnostic of diphtheria. The diphtheria infection in the case of Corinne M. probably was secondary in its effects to the streptococcus infection, and the virulent mixed infection very likely would have been fatal under any circumstances

Before passing from this series of cases, I should also mention that a young nurse, probably 19 or 20 years of age, who, for about forty-eight hours, was with the patient who died, was taken sick the night that she left the house, and the following morning had an exudate on her tonsils similar to that of the cases reported. The serum tube inoculated by me from her throat grew immediately a culture of streptococci with a few diphtheria bacilli This girl received, I believe, about 800 units of antitoxin, but was practically over the attack in forty-eight hours

CASE 5—R T C, male, aged 34, came to my office with temperature of 100 F, a slight exudate on both tonsils, and some glandular enlargement Culture showed streptococci and staphylococci, the former predominating This patient did not stop work, and was free of fever in about two or three days after I first saw him

The next case is more interesting.

CASE 6—*History*—Miss Virginia G aged about 30 seen through the courtesy of Dr Edward D Mitchell, began to have severe sore throat about a week previous to the day that I first saw her She had some pain in the right side of her chest a week before this, but no symptoms of pneumonia Her fever had been running as high as 104 F in the afternoons, but was usually lower in the mornings The throat pain was quite severe, being more pronounced in the right side, and reflected to the ear The back of the head and neck on this side were very tender

Examination—This showed considerable faucial congestion, with some edema of the soft parts—edge of velum palati, etc There was no exudate on the tonsils at all The right cervical glands were enlarged and tender, and the least pressure seemed to cause excruciating pain The temperature at the time that I first saw the patient was 102 F

Course of Disease—Ice to the back of the neck and a fever mixture were ordered and the next morning the temperature was normal and the patient felt decidedly better The following day, however, I received a message that she was suffering greatly, even more than she had at any time previously On calling at the house I found the throat in the same condition of congestion as before and the glands just as swollen and painful Her temperature was 101 F While there was nothing showing in the throat other than congestion, I swabbed the affected side and inoculated a culture tube The same treatment as previously advised was continued The next day the patient was decidedly better, and convalescence was uninterrupted The culture showed a mixed growth of streptococci and staphylococci.

3 Diseases of the Nose and Throat, 1907, p 488

Marschik[4] recently reported from Chiari's clinic a case of septic hemorrhagic pharyngitis occurring in a man 54 years of age, which ended fatally in fourteen hours, and in which the streptococcus was found in almost pure culture. While ordinarily we do not expect a streptococcus infection of the throat to terminate fatally, yet we are not justified, apparently, in giving a favorable prognosis in any of these cases, since we can not determine when the condition may assume a malignant type. Bearing this statement out is the history of a case recently seen by me in consultation.

Case 7.—*History.*—On March 10, 1909, I was asked by Dr. E. M. Holder to see Mrs. P., aged about 32, who had been under his care for about three weeks. Dr. Holder stated that when Mrs. P. came to him at first she had an eruption over her body which he regarded as a possible lues, and for which he gave her mixed treatment. There were also some rheumatic symptoms. This eruption disappeared, and a short while afterward the patient developed considerable glandular enlargement of the left side of the neck, there subsequently being some soreness of the throat. This enlargement was at first confined to the glands, but later involved the periglandular tissue, until it resembled an acute phlegmon. The patient had been having some fever and was flighty at times. She was sent to the Presbyterian Hospital the morning of the day that I saw her, and an incision was made by Dr. Holder through the most boggy portion of the involved area, but pus was not found. A few days prior to this a clear blister resembling pemphigus was noticed on one finger, but no other blebs were found. The patient was very much depressed, and seemingly in a grave condition from the sepsis.

Examination.—I found Mrs. P. in a lethargic, almost stuporous condition, but mentally clear. Her temperature was 99.4 F., with small, fast pulse. There was a large and brawny swelling of the glands and periglandular tissues of the left side of the neck, especially marked low down toward the clavicle. No fluctuation was detected anywhere. The throat showed no distinct peritonsillar swelling, and there was no exudate on the tonsil, although there was some edema of the uvula. I inoculated a culture tube with a swab which had been rubbed over the peritonsillar region of the left side of the throat, and the next morning received a report of a rich growth of streptococci.

Course of Disease.—This patient was being given supportive treatment by Dr Holder, and nothing else was regarded as advisable. The case went on to a slow recovery. The prostration in this case was very marked, and an excellent illustration of the virulency of the infection.

Memphis Trust Building.

4. Monatsschr. f. Ohrenh., xliii, No. 1.

ADVERTISING BY PHYSICIANS*

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A discussion of the ethics of advertising may at first seem superfluous to the respectable physician, or, at least, not to interest him personally. "A gentleman," he will say, "knows how to conduct himself without consulting a written code. Reputable physicians do not advertise, and therefore nothing more need be said on the subject." But we are sometimes called on to pass judgment on the acts of others, and then the dictates of a sound conscience, which are sufficient to determine one's own conduct, require to be formulated into rules, in order that we may proceed with that order essential to justice. But, besides, is it true that reputable physicians do not advertise? Is it not rather true that all physicians, consciously or unconsciously, willingly or unwillingly, advertise and are advertised?

Is the trail of the serpent, then, over us all? Not at all. For there is objectionable advertising and unobjectionable advertising, differing in form, but still more in intent, and the gulf between the charlatan and the true physician exists, not from the fact that the one advertises and the other does not, for both do, but from the kind of advertising practiced by each.

I can almost see the hot wave of anger mounting to the faces of some of my honest friends at these words, while they can hardly suppress the vigorous protest rising to their lips. But, my dear doctor, have you never had a card printed with your name, address and office hours? I admit that it was not intended for advertising purposes, but is it not at least potentially an advertisement? Do not your name, occupation and address appear in the city and telephone directories? That, you say, is merely for the convenience of your patients, but, none the less, there it is, plain for all men to see. Have you no sign on your door or window? You don't mean it as an advertisement, maybe, but it is one, all the same. And your biggest and best paying advertisement is your title of "Doctor" by which you are everywhere addressed.

Let us then consider what is proper in the way of advertising, and what is not. And first let us see in what set terms the wisdom of our profession in this country has from time to time expressed itself on this subject. It will be useful not only to cite the text of the national pronouncement now recognized, but also from codes and similar formulas in force in earlier times and in various parts of the land, inasmuch as we wish to know not only the written law which can be invoked to-day, but the sentiment of the American profession on this subject from its earliest expression. We need not be surprised if we find the oldest and the newest in close accord.

The earliest dictum on this subject I have found is one by the New York State Medical Society. On Feb. 27, 1823, "A System of Medical Ethics" was reported to that body by a committee appointed for that purpose, and was adopted.[1] We read under heading "Quackery," Division II, Section 6:

> Public advertisements or private cards, inviting customers afflicted with defined diseases; promising radical cures; engaging for no cure, no pay; offering advice and medicines to the poor, gratis; producing certificates and signatures even from respectable individuals in support of the advertiser's skill and success, and the like, are all absolute acts of quackery, which medical institutions should always repress and punish by the rejection or expulsion of those who commit them.

The American Medical Association, at its first annual session, in May of 1847, adopted a "Code of Ethics,"[2] which continued as its formal expression until superseded by the "Principles of Ethics" in 1903. We read in the "Code," Article I, Section 3:

> It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills, inviting the attention of individuals affected with particular diseases—, publicly offering advice and medicine to the poor gratis, or promising radical cures, or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics and are highly reprehensible in a regular physician.

1. Tr. Med. Soc. State of N. Y., Volume for 1807-1831, p. 222. Reprinted 1861, p. 282.
2. First published in the Transactions xviii, 523. Before that it appeared in a small pamphlet.

* Read before the St. Louis Medical Society, Feb. 6, 1909.

The Code of Ethics was adopted by the St. Louis Medical Society June 18, 1850.

The Massachusetts Medical Society, Feb. 4, 1880, adopted a Code of Ethics.[3] Its provisions on the subject of advertising are very brief and concise:

He (the physician) should not . . . advertise himself or his practice in public print.

In 1882 the Medical Society of the State of New York adopted a code of its own, varying from the code of the American Medical Association in some important particulars, chief among which was the matter of consulting with irregular practitioners. This "New Code," as it came to be called, was adopted February, 1882, by a vote of 52 to 18. That year the delegates of the state society were refused admission to the American Medical Association by the Judicial Council, and remained out until 1906. This led to the formation of the New York state and county medical associations in affiliation with the American Medical Association.

In the matter of advertising, however, the New Code was, if anything, more stringent than the old. I reproduce the section in question, placing in italics the words not found in the old code. The final sentence of the latter, beginning, "These are the ordinary practices of empirics," was omitted from the New York document:

It is derogatory to the dignity *and interests* of the profession *for physicians* to resort to public advertisements, private cards or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor, *without charge*, or promising radical cures, or to publish cases and operations in the daily prints, or *to suffer* such publications to be made; *or through the medium of reporters, or interviewers or otherwise, to permit their opinions on medical or surgical questions to appear in the newspapers;* to invite laymen to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to perform other similar acts.

The American Medical Association adopted, March 28, 1891, certain "ordinances" supplementary to the code, and binding equally with the original document. Among these were the following:[4]

Resolved, That it shall not be proper for specialists publicly to advertise themselves as such, or to assume any title not specially granted by a regular chartered college.

Resolved, That private handbills, addressed to members of the medical profession, or by cards in medical journals, calling attention of professional brethren to themselves as specialists, be declared in violation of the Code of Ethics of the American Medical Association.

These ordinances, now superseded by the Principles of Ethics, have been widely disregarded, as is evidenced by the frequent use of the words "practice limited to" such a specialty on the cards of men generally and properly rated as in good standing.

At the meeting of the American Medical Association at Saratoga Springs in 1902, a resolution was offered in the House of Delegates[5] to the purpose that the revision of the code approved by the council of the New York State Medical Association (in affiliation with the American Medical Association) be examined by a committee and reported on in 1903. The resolution being adopted, a report was accordingly submitted the year following, differing widely in some particulars from the letter, although not from the spirit of the old code. The report says:[6]

The caption, "Principles of Medical Ethics" has been substituted for "Code of Medical Ethics" . . . the committee deemed it wiser to formulate the principles of medical ethics without definite reference to code or penalties. Large discretionary powers are thus left to the respective state and territorial societies to form such codes . . . as they may consider proper, provided, of course, that there shall be no infringment of the established ethical principles of this Association.

These "Principles" were unanimously adopted by the House of Delegates, at New Orleans, on May 7, 1903. The language of the principles in reference to advertising is as follows:

ART. 1. SEC. 7. Advertising methods to be avoided.

It is incompatible with honorable standing in the profession to resort to public advertisements or private cards inviting the attention of persons affected with particular diseases; to promise radical cures; to publish cases or operations in the daily prints, or to suffer such publications to be made; to invite laymen (other than relatives who may desire to be at hand) to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to employ any of the other methods of charlatans.

The St. Louis Medical Society, besides subscribing from the first and ever since to the Code, Ordinances and Principles of the American Medical Association, has from time to time enacted by-laws of its own, prohibitive of advertising and related methods. Thus we read in the "Constitution and By-laws," published in 1896, as follows:

BY-LAWS, ART. 1. SEC. 13: No person holding any patent, or part thereof, for medicines or secret remedies for disease, or who shall, by publication in newspapers or otherwise, announce his pretensions to superior qualifications in any particular disease or diseases; or who shall resort to public advertisements, or private cards or handbills, inviting the attention of individuals affected with particular diseases; or publicly offer advice or medicine to the poor, gratis; or promise radical cures, or publish cases or operations in the daily prints, or suffer such publications to be made, or invite laymen to be present at operations, or adduce certificates of skill and success, or perform any other similar acts, shall be eligible to (or) retain membership in this Society.

In 1900 (By-laws, Art. XXIV, Sect. 2) the above language was repeated almost exactly, and there was added to the list of reprehensible practices "the announcement of the use of secret methods of cure" and "paying or offering any salary, bribe or commission in return for patients procured, or accepting the same, or employing others to do any of these things, shall, among other things, be considered gross misconduct in the sense of the preceding section."

Our present by-laws (adopted October, 1907) do not enumerate various forms of misconduct, but specifically endorse the Principles of Ethics of the American Medical Association in the following language:

BY-LAWS, CHAP. 1, SEC. 5. Misconduct.

Any member guilty of gross misconduct, either as a physician or a citizen, or of violating any of the provisions of this Constitution and By-laws, or the Principles of Medical Ethics of the American Medical Association, shall be liable to censure, suspension or expulsion.

Having thus reviewed the letter of the law as formulated in various times and places, let us seek to penetrate its true spirit, and thus learn in what ways it is proper, if any, for the physician to bring himself to the attention of the public.

Advertisements, or let us say notices, addressed by the physician to the public, may be divided into five classes.

3. Bost. Med. and Surg. Jour., 1880, cii, 256.
4. Tr. A. M. A., 1869, xx, 28.
5. THE JOURNAL A. M. A., 1902, xxxviii, 1649.
6. THE JOURNAL A. M. A., 1903, xl, 1379.

1. Those which are not only uncondemned by the Principles of Ethics, but which are in use everywhere and by the most conscientious physicians. These consist of signs usually not exceeding a foot or two in length, in modest colors, suspended in front of the office, or affixed to a wall or door, or inscribed on a window, setting forth the doctor's name, sometimes with the addition of his hours; and of cards similarly modest in appearance and statement, such cards never to be promiscuously distributed. Even such cards are employed rather as convenient memoranda of the physician's address and hours than as advertisements, although they may unquestionably be applied to the latter purpose by overzealous friends and admiring patients into whose hands they fall.

2. Those not condemned by the Principles of Ethics and in use in certain communities and by certain individuals of unquestioned respectability, while avoided by others. They consist of simple business cards inserted in lay publications, containing the same matter as the ordinary office card. Such announcements were in general use in this country a generation or two ago, are still in common use by practitioners in the smaller towns and in many large cities by practitioners having a foreign-speaking clientele. They are virtually obsolete among English-speaking metropolitan physicians. It might be said of these that they are rather intended as memoranda of address, hours, etc., to those already secured as patrons than to attract new practice. The use of such announcements in certain places and under certain circumstances may be indiscreet, but does not call for formal condemnation.

3. Those not specifically condemned by the Principles of Ethics, but manifestly in contravention of its spirit, and as such universally deprecated by consistent and worthy physicians. Such practices come under the general condemnation of the Principles of Ethics, being included within the meaning of the closing phrase of Art. 1, Sect. 7, "any of the other methods of charlatans." The distributing of cards on the street or from door to door, the use of very large or very showy signs, or the distributing of reprints of medical articles to prospective patients or other laymen might be cited as examples, although the last-named practice will often come directly under the condemnation of "boasting of cures and remedies."

4. Advertisements, veiled in form, oftenest consisting of accounts of cures, operations, alleged discoveries, and so forth, ostensibly written by newspaper reporters, but really furnished by the physician, verbatim or in substance. These are condemned by the Principles of Ethics, are the most dangerous and vicious of all forms of advertising, and arouse the disgust and contempt of all honest men, whether in the medical profession or out of it, inasmuch as they necessarily contain an element of untruth, seeking to conceal their true character, and to secure for their perpetrators the wages of prostitution, while striving to shield them with a cloak of respectability.

Another class of newspaper articles may be mentioned in this connection, varying widely in their true nature and intent, and ranging all the way from some which are not only proper but deserving of commendation, down to those which narrowly escape an infraction of the bare text of the law.

We refer to articles in the lay press dealing with topics of medical interest, or presumably written from a medical standpoint. The subject is a delicate one, for, while it is usually easy for the discerning reader to discover the true animus of an article, whether, on the one hand, inspired by a genuine desire to instruct and benefit, or, on the other, designed to impress the reader with the writer's attainments and thus secure him as a possible patient, it none the less remains difficult to define each sort in categorical terms. Sometimes the diagnosis is made clear by the presence of pathognomonic symptoms of moral malignancy, such as a more or less flattering half-tone of the eminent professor, a list of his titles and honors, references to his performances and achievements, or again by the frequent recurrence of the first person singular. These characteristics are, however, avoided by the shrewder veiled advertisers.

Rules of general application in deciding as to the true character of such productions may perhaps be deduced from a classification according to their subject-matter.

Articles and interviews by physicians in the lay press, apart from accounts of cases and operations, which need not further detain us, are usually of one of three kinds:

1. Those containing advice.
2. Those discussing scientific points.
3. Those discussing the diagnosis or treatment of some individual case which has gained notoriety.

The advice imparted in the first class of articles may be such as any one easily can and therefore should, if need be, obtain from his regular adviser, and which therefore should not be distributed gratis and unasked. As examples we may cite such titles as "How to Reduce Your Weight" and "What to Do When Baby Has the Measles."

Or the advice may be so generally applicable as to possess real value, and at the same time be such as the reader would probably not obtain from his regular attendant, because he would not think of applying for it. As examples we may cite articles on preventive medicine, such as the prophylaxis of tuberculosis or typhoid, the precautions to be observed in times of epidemic or during extremes of heat and cold, the importance of vaccination, and of the medical inspection of schools; instruction as to first aid in drowning, heat-stroke, poisoning and the like; as to the dangers attendant on the habitual use of alcohol and other drugs, and, again, the exposing of dangerous charlatans and nostrums.

It seems evident, therefore, that of the class of articles conveying advice, some, as those of the sort first mentioned, are, to say the least, open to grave suspicion, while others, such as were last enumerated, may be of great benefit to the community, be purely altruistic in purpose, and therefore should receive the hearty commendation of the profession. This is especially true when they are written by one who is well informed in the matter, and with the ability to put his thoughts on paper, whose recognized position in the profession is such as to lend weight to his utterances, and who has already attained to such honors and rewards as to lift him above any suspicion of harboring sordid motives. The giving of instruction to the public is, indeed, specifically insisted on by the old "Code" and the "Principles" in almost identical terms.

The Principles of Medical Ethics says:

Chapter 3. The duties of the Profession to the Public.

Sec. 1 [in part]: They [physicians] should also be ever ready to give counsel to the public in relation to subjects especially appertaining to the profession, as on questions of sanitary police, public hygiene and legal medicine.

Sec. 2 [in part]: It is the province of physicians to enlighten the public in regard to quarantine regulations, to the location, arrangement and dietaries of hospitals, asylums, schools, prisons and similar institutions; in regard to measures for the prevention of epidemic and contagious diseases.

Sec. 4. It is the duty of physicians who are frequent witnesses of the great wrongs committed by charlatans, and of the injury to health and even destruction of life caused by the use of their treatment to enlighten the public on these subjects, and to make known the injuries sustained by the unwary from the devices and pretensions of artful imposters.

Contributions of the second class, those, namely, discussing scientific matters of general interest, are unobjectionable unless so written as to direct attention to the writer rather than to the subject-matter.

Articles falling within the third class, namely, those discussing the diagnosis or treatment of cases which have become notorious, or which affect eminent personages, will, as a rule, deserve the censure of the judicious, for it can not be urged that they serve any useful purpose. The discussion, if proper at all, should be reserved for the medical press, and is out of order in a lay publication, lying, as it does, outside of the sphere of the audience which it addresses. It is difficult even for the charitable-minded to see any purpose in such effusions, except the aggrandizement of the writer.

An opinion on an illness or injury, expressed by a physician who was at no time connected with the case, is not justified by the circumstance that the sufferer is a prominent personage, or that he lives in a distant place. Such public discussion of the diagnosis or treatment adopted for the patient of another practitioner, besides being necessarily based on incomplete and uncertain information, is in itself grossly indelicate and in violation of common justice and common courtesy. These latter considerations are perhaps not germane to the subject of this paper, but it may well be suspected that a public deliverance so unnecessary and so indefensible is prompted by selfish motives. Some of my older hearers may recall certain peculiarly revolting examples of this particular brand of indecency in connection with the sufferings of the lamented President Garfield.

To this same class belong expressions in the public prints as to the sanity of noted criminals. To say nothing of the crying injustice of trying men for their lives in the columns of a daily journal, a casual glance at such learned (?) pronouncements will usually show them to be either garbed in polysyllabic technicalities unintelligible to the non-medical reader, or to deal with matters concerning which the lay mind can not correctly judge, since no subject within the periscope of our science is so difficult, so involved, so beset with subtleties and uncertainties, and so purely a matter for the specialist, as is that of psychiatry. The least grave charge that can be made against "interviews" of this sort is that they argue a weak yielding to the importunities of a reporter and to the alleged curiosity of the public as to matters which are none of their concern, inasmuch as they lie beyond their powers of comprehension. As a matter of fact, however, such articles are generally "interviews" in name only, having been carefully written out by the learned expert who hopes thus to keep within the limelight.

Another debatable form of publicity is that of the antemortem biographical notice, often accompanied by a portrait, appearing in bound collections of sketches of "distinguished" citizens, or perhaps in the Sunday edition of a metropolitan paper.

If it concern some individual of such real eminence that his personality has become a thing of interest to the intelligent public, such publication may be excusable, inasmuch as its real and its avowed purpose are then the same. Such a notice is not an advertisement, because it does not seek to create notoriety, but is its consequence. If such notoriety be the unsought fruit of genuine achievement of great value, the publication of a notice or picture may be beyond cavil. Often, however, names and faces so paraded have little claim to distinction.

It may be impossible here in every case to draw a hard and fast line between what is allowable and what is not. Practically, however, if the truth can be learned, the question may be settled, at least in the affirmative, by a simple test: Was the insertion contingent on the payment of a fee, direct or indirect? If so, it is an advertisement, although perhaps not actionable under the letter of our law. The latter point is debatable. The unworthy character of the act is not debatable. It does not follow from what was said above that a notice inserted free of charge is, therefore, not an advertisement.

5. Last among the classes of advertisements by physicians, using the last term somewhat loosely, are the flagrant, undisguised, paid advertisements, generally displaying an alleged picture of the "doctor," his chin either concealed by a patriarchal beard or appearing as a naked plain flanked by flowing side-whiskers; or the portrait may be that of a victim; the accompanying text may be simply mendacious, or again obscene or criminal. These we need not discuss, further than to say that there is something about their boldness which begets a feeling distantly allied to respect, which the more covert performances of their timid admirers and would-be imitators could never do, just as there is a lurid halo about the memory of Jesse James or of Billy the Kid, which is not shared by the Sicilian ladrones who picked the pockets of the dead at Messina.

It will be noted that in the foregoing attempt at an analysis of the subject, I have taken the term "advertising" in a somewhat restricted sense, namely, that of reading-matter of one sort or another addressed to the public. I realize that there are many other things, spoken words and actions, which are in a sense advertisements, but apart from the necessity of fixing certain bounds to a subject, and limiting its discussion within these, I feel that a classification of the wider sort mentioned into its orders, families, genera and species, would involve a dissertation on the whole moral law, and is made unnecessary by the commandment, "Thou shalt love thy neighbor as thyself."

I have also left untouched the matter of advertisements of the physician's learning and skill addressed to and intended for the profession. This subject is a very difficult one, while the evils it includes are not of the sort which cry to Heaven, for this reason, if no other, that the medical audience addressed is better able to take care of itself than is the lay public.

To sum up, we may conclude that any notice emanating from a physician which seeks to secure for him an unfair advantage over his fellows, or which departs so widely from established usages as to compromise his dignity, is an objectionable advertisement, and that the greater the pains taken to conceal its true character the deeper is its damnation.

3894 Washington Boulevard.

Clinical Notes

A CASE OF UNDIAGNOSTICATED BRAIN ABSCESS *

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Abscess of the brain is not a common affection and it is not rarely overlooked. It is almost invariably secondary to suppuration elsewhere, although it may be a sequel of direct injury to the head. Inflammatory disease of the middle ear is probably the most common causative factor. The symptoms are essentially those of a tumor of the brain plus those of a toxic-infective process. The diagnosis may be exceedingly difficult, if not impossible, without a knowledge of the etiologic agency. In the case to be reported it should have been possible to recognize the condition and to afford relief through surgical measures.

History.—A woman, aged 35, was admitted to the nervous ward of the Philadelphia General Hospital, Feb. 5, 1909, complaining of headache, pain in the back and legs and abdomen, with nausea, vomiting and pain in the left ear. The illness was said to have been of two weeks' duration and to have set in with headache, pain in the lower extremities and back, together with nausea and vomiting. There had also been diarrhea and chills, fever and sweating. The patient went to bed for a day, then arose, and again had to go to bed two days before admission to the hospital. There had been a discharge from the left ear for three months. On entrance into the hospital the temperature was 97 F., the pulse 70, the respiration 25. The temperature soon rose to 102, but it gradually declined to the normal, while the pulse at no time rose above 88 and the respiration above 25. The patient complained of headache and suffered from nausea and vomiting.

Examination.—The pupils were contracted and equal and reacted to light and in accommodation. The ocular movements were well performed and there was no nystagmus. The activity of the facial muscles was preserved and alike on the two sides except that the creases produced on wrinkling the forehead were more pronounced on the right side than on the left. The knee-jerks were slightly increased, but the remaining reflexes, as well as sensibility and the action of the sphincters, were normal. There was no noteworthy abnormality of the thoracic or abdominal viscera. There was no discharge from either ear. There was some mental confusion. The urine contained a trace of albumin and a few hyaline casts. On suspicion that the case was one of typhoid fever the patient was transferred to the medical ward, where she complained of intense headache and insomnia and exhibited marked restlessness. Intelligence was obtunded. On examination no discharge from either ear was found, nor was there tenderness over the mastoid process, even on strong percussion. The urine contained albumin and hyaline and granular casts. The hemoglobin percentage was 85 per cent., the number of red corpuscles 4,800,000, and the number of leucocytes was 10,000 in the cubic millimeter. The agglutination test for typhoid fever was made twice, and in each instance yielded a negative response.

Course of Disease.—On February 11 the patient stated that her headache was less severe than it had been and that she was resting better. On February 12 drowsiness developed, with irritability, the patient resenting interference. On February 14 she complained of nausea and on two occasions vomited a considerable amount of greenish, watery, sour-smelling fluid. The drowsiness increased, while the headache persisted in undiminished degree. Death took place abruptly early on the morning of February 16.

Autopsy.—A large amount of turbid, greenish pus of foul odor, together with a small amount of diffluent brain tissue, escaped when the calvarium was removed and the adherent dura on the left side incised. The middle and lower temporal convolutions of the left cerebral hemisphere were the seat of an abscess communicating with a sinus in the petrous portion of the adjacent temporal bone, and this in turn was the continuation of a larger abscess in the middle ear. The bony portion of the internal ear was also involved in the destructive process. The kidneys were the seat of acute inflammation; the myocardium was involved in fatty infiltration and fatty degeneration, and the liver was the seat of fatty infiltration.

The case was at the beginning supposed to be one of typhoid fever, but the early decline of the temperature, together with the absence of the specific agglutinating reaction, negatived such a diagnosis. The absence of pain, tenderness and swelling about the ear and of discharge, as well as of cerebral symptoms of a localizing character, especially when taken in conjunction with the slight changes in temperature, pulse and respiration, diverted attention from the head, although the persistent and intense headache, the nausea and vomiting, the inequality in action of the two sides of the forehead, and the mental impairment, especially in conjunction with the leucocytosis, the history of previous ear disease and of chills, fever and sweating, should have awakened suspicion of the real condition. The state of the urine also contributed to the confusion, as uremia had to be considered as a possible cause. It is to be regretted that an examination of the eyegrounds was not made, as a unilateral lesion would have been a most significant finding.

1019 Spruce Street.

* Read before the Philadelphia Neurological Society, April 23, 1909.

A DELICATE TEST FOR BILE IN THE GASTRIC CONTENTS

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In making chemical analyses of the gastric juice siphoned off one hour after a test meal, I have frequently observed that the specimen before and after filtration would have a decided greenish tint, suggesting either bile or gastrosia fungosa (mold in the stomach) and on testing some of this filtered gastric juice for bile by the nitrous acid method, I have often been surprised that no reaction would be given.

On April 17, 1909, after siphoning off the gastric contents from a patient I observed that the specimen had a grass-greenish tint. I allowed the gastric contents to pass through some ordinary white filter-paper, and on testing this filtered gastric juice for bile by the nitrous acid test I obtained no reaction. The filter-paper, especially the upper edge, was stained quite green in color, and I could not persuade myself that bile was not present, or else that the case was one of gastrosia fungosa. The filter-paper was removed from the funnel, and that portion of the gastric contents, consisting of mucus and remnants of test breakfast, which did not pass through the paper was scraped off. This filter-paper was laid aside to dry during a period of several days. Four days later, on April 21, this dried filter-paper still had a greenish appearance, especially around the edges. On moistening these greenish areas with nitrous acid I observed the play of colors characteristic of the bile reaction, the green color first changing to a faint reddish tint, which lasted a few seconds, then being followed by blue, and after two to five minutes changed to a brownish tint. Thinking that the same reaction could be perhaps obtained by using the filtered gastric contents, I then passed some of it back through another piece of white filter-paper, and, when it was thoroughly dry, applied the nitrous acid test as before, but obtained no reaction, owing, no doubt, to the fact that the viscid

bile had not passed through the filter-paper in sufficient quantity to respond to the nitrous acid test.

In testing the gastric contents for bile, one should allow the gastric juice to pass through white filter-paper, and when it has become dry one should then apply the nitrous acid test to this filter-paper, instead of testing the filtered gastric contents; otherwise bile in the stomach may escape detection. This reaction is best observed in a somewhat shaded portion of the room.

HAT-PIN IN THE MALE URETHRA

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The report by Dr. B. Clark Hyde in THE JOURNAL, March 12, 1909, p. 885, of a case of shawl-pin in the male urethra reminds me of a similar case which happened in my practice in 1886.

Mr. ——, aged about 40, married, came into the office stating that he was carrying a hat-pin about in his urethra. Examination demonstrated that something was there. He admitted that he had been masturbating with the hat-pin when it escaped his grasp and got away. He had consulted several physicians: the result was considerable laceration of the urethra, a meatus enlarged by incision, quite a bit of swelling and some hemorrhage. The bead end could be felt in the membranous urethra and the sharp end had engaged in the upper urethra, about an inch from the meatus. Realizing the futility of fishing for it with forceps, I at first introduced a small pipette into the penis, hoping to maneuver so as to engage the sharp end of the pin and so remove it. This I was unable to do, possibly because I did not persist in trying, as a simpler method suggested itself, nearly the same as that pursued by Dr. Hyde. I bent the penis at a right angle to the direction of the pin, thrust the sharp end of the latter through the urethra and skin, then drew it out until the bead stopped it. Reversing the direction, the bead end was pushed out through the meatus and the pin easily withdrawn. The patient did not return, so I can not state the later history.

Therapeutics

SCIATICA

The sciatic nerve is one of the frequent locations of nerve pain, and is perhaps more frequently the location of a neuritis or a perineuritis than any other nerve of the body. All possible causes of the condition must be sought for and found or excluded, and before a general condition, or a condition of the blood, is decided to be the cause of the neuralgia or inflammation, all local reasons should be excluded.

A frequent cause of sciatica in women is pressure on the nerve in the pelvis, either from uterine displacements, uterine enlargements, tumors or inflammation that has extended and caused pressure.

Constipation, with fecal matter remaining long in the lower bowel, is also a not infrequent cause of sciatica, and such a condition of the loaded sigmoid is a not uncommon cause of left-sided sciatic pain.

Gout and rheumatism certainly are many times the cause of sciatic neuritis.

Exposure to wet and cold, especially when the feet become wet and chilled, or sitting on cold stones, or long sitting on hard-bottomed chairs may be the initial cause of a sciatic neuritis.

Pain in the lumbar muscles, lumbago or lumbar myalgia, is often followed by pain in one or the other, or both sciatic nerves; or both conditions may be present at once. In fact, frequently when there is no evident abdominal or pelvic excuse, a lumbago is followed by pain in a sciatic nerve. A not infrequent cause of a lumbago is too lax springs and a too comfortable bed. This is especially true when the person is of heavy weight. A stiffening of the bed springs and a straightening of the bed will often be sufficient alone to stop this kind of pain which is so frequent, and also so frequently extends to the sciatic nerves.

A weakening of the plantar arch and an attempt of the person involuntarily so to step and stand as to relieve the ache in the ankles and feet will cause abnormal muscle tension, even of the thighs, and a sciatic pain can be caused from this reason, to say nothing of the frequent pain in the knees from this cause.

Uricacidemia, and even an increased acidity of the urine, with bladder irritability, is often a concomitant condition with sciatica. The sluggish circulation due to an imperfect heart action or to a varicose condition of the leg may be a predisposing cause of sciatic pain. It is hardly necessary to mention the occasional causes of sciatica, as diabetes, malaria, syphilis and hip-joint or knee-joint disease.

Consequently, before beginning any local or general treatment for sciatica, the patient should be carefully examined and any local cause found, the circulation investigated, the urine analyzed, and the intestinal digestion and activity learned. It should also be determined whether the pain is due to neuralgia, i. e., a simple irritation of the sciatic nerve, or whether there is an actual neuritis or perineuritis, which may be determined by excessive tenderness, pain on stretching the nerve (as by thoroughly extending the leg) or by a beginning anesthesia in any part of the distribution of the nerve.

It is not necessary to urge the necessity for removing local pressure, if such has been found, before it could be expected that the sciatica or the neuritis could be made better. Free elimination from a calomel, castor oil, or saline purgative, and subsequent daily free movements of the bowels is certainly a large factor in the successful treatment of sciatic trouble. The character of the diet should be determined by the condition of the patient. If the patient needs nutrition, the most nutritive diet possible should be given, and, in fact, perhaps hyperalimentation given. On the other hand, if the patient is plethoric, has been a high liver, eating largely of proteids, especially meats, a vegetable and limited diet for a time, at least, is the best. If the circulation is impaired, it should be aided. If the circulation is good, plenty of water should be given to aid the eliminative process by the kidneys. Hot daily tub baths, a Turkish bath twice a week, or a body hot-air treatment twice a week, are all adjuvants in the treatment of sciatic inflammation that are far ahead of medicinal treatments. The body hot-air treatment is most efficacious when rheumatism is the cause of the condition, and no treatment is perhaps more successful. This is also especially true when there is kidney insufficiency. The promotion of the circulation in the skin and the increase of the excretory ability of the skin is a large factor in the benefit derived from such treatment.

Occasionally the attack of sciatica comes on suddenly, but generally it is gradual in its development, and the longer it has persisted the more difficult is it to cure; consequently, sciatica, even in mild form, should not be neglected.

It is probable that the shooting pains down the sciatic nerve, momentary perhaps in their duration, are caused by contractions of the pyriformis muscle, which compresses the sciatic nerve. It is also probable that

this muscle sometimes becomes irritated and inflamed and keeps up, by its contractions, pressure on the sciatic nerve. If such pressure is more or less continuous, sciatic neuritis could be caused. This condition being surmised or suspected, local treatments aimed at relieving the spasm of this muscle should be instituted. Among such measures may be included static wave currents, mechanical vibration and sparks from a static machine locally applied to the region of the foramen through which the sciatic nerve leaves the pelvis. Also sometimes beneficial is the application of dry heat to this part, and perhaps best by the reflected heat and light of a strong electric light.

Sometimes counter-irritation along the course of the sciatic nerve by momentary localized applications of the galvanic electric current with the positive pole active, or painting along the course of the nerve with iodin, or electric light bath treatment to the whole course of the nerve, or dry cupping along the course of the nerve and repeated on successive days, will abort a beginning neuritis. In an ordinary case of sciatic neuralgia, if the cause is removed, the neuralgia will cease.

If beginning neuritis or perineuritis is suspected or diagnosed, absolute rest of the limb on a level, hard bed, with electric light applications or dry heat applications, with the administration of alkalies or salicylate, and the general management of the bowels above outlined, may still abort the inflammation.

If, on the other hand, an actual neuritis is present, there is nothing that will shorten an attack so much as a long splint from the axilla to the heel, to give permanent fixation and rest. If a splint is used for this purpose, the bandage which binds it should be removed at least once, and perhaps better twice, a day and the limb gently flexed once or twice so that the joints will not become stiffened. The length of time such a splint should be used is determined by the amount of pain and the rapidity with which the inflammation improves. No fixed rule can be established. Another method of fixing and treating a limb so affected is by long sand bags, which may be put into the oven and rendered very hot, and changed as often as they become cool. Such applications give rest to the limb and constant dry heat. If such heat is not applied, the limb should be swathed in cotton and bandages, as warmth is very essential in all cases of neuritis.

When the pain is intense, and especially if periodical contractions of the muscles occur (which, however, are best prevented by the long splint), injections of morphin must be given. But perhaps nothing will prevent the necessity of such injections more than the ability to give the leg perhaps, but better the whole body, hot-air treatment, which, of course, can only well be done in an institution. The amount of morphin that is needed and the frequency depends on the pain. Such frightful pain can not be endured, and, if not stopped by other means, must be stopped by morphin.

Sometimes the injection of cold water or of a small dose of cocain directly into the nerve sheath in the region of the sciatic notch will cause almost instant cessation of the pain. If cocain is used hypodermatically, the dose would be from 0.008 to 0.015 gram (⅛ to ¼ of a grain), but it should not be often repeated, and it does not seem to be very advisable treatment. If cold water is used and reaches the sheath of the nerve and distends it in this region, of course, it will stop the sensations below, and such treatment sometimes precludes the necessity of the administration of morphin.

The coal-tar analgesics are only of temporary benefit in mild cases, are never of benefit when there is severe pain, and, as the need for an analgesic is so frequent in sciatic neuritis, great debility would be caused by such repeated use of them. Ordinarily, therefore, they should not be used in sciatic neuritis.

There is no really good reason for using atropin hypodermatically in sciatic neuritis. The pain of neuritis comes from the main trunk of the nerve and is distributed more or less to all its branches. Atropin only dulls nerve pain when that pain is due to peripheral irritation. If atropin is used in conjunction with morphin it does nothing but inhibit the narcotic and quieting effects of the morphin, and more morphin is required. Also, if the dose of morphin must be repeated for severe pain, the discomfort of the patient is increased, the restlessness is increased, and the secretions are decreased by the frequent repetition of atropin.

Osmic acid has been used subcutaneously in sciatica to the amount of 1 c.c. (15 minims) of a 1 per cent. solution. Perhaps the best method is to dilute the 1 c.c. (15 minims) of the 1 per cent. solution with sufficient water to allow of a series of injections, from five to ten, into the nerve trunk throughout its course, a few drops being instilled into the nerve sheath at each puncture. This method is, of course, painful, although it may be followed by good results, but the favorable action is possibly largely due to the "acupuncture" treatment and to the distention of the nerve sheath (nerve pressure) from the water. Therefore, if the sheath of the nerve is to be pierced at all, it would seem best to do this at the sciatic notch and instill sufficient water to produce anesthesia below.

It should be understood that a sciatic neuritis is like any other neuritis, and, therefore, will first grow worse, reach its acme, and then gradually and slowly become better, with anesthesias, pain, and more or less paralysis. The patient should be told that a long, tedious process is before him, and that no exact time limit to the duration of the inflammation can be promised.

After the acute condition is past, massage, possibly gentle counter-irritation, faradic stimulation of the muscles, or other electric or hydrotherapeutic measures may be used to bring the leg back to normal function.

It should be again emphasized that probably the most efficient means of shortening the inflammation in the nerve and hastening recovery is by the hot-air treatment.

As soon as the active symptoms have ameliorated, and especially if there is chronic sciatic pain, thermocautery treatment along its course, and repeated once in five days, causes efficient counter-irritation and frequently a cure.

Paralyzed muscles should be treated with such electric and massage treatments as is usual in other paralyses.

If the cause of the cured neuritis was a systemic one, such treatment should be carried out and persisted in as would tend to prevent a recurrence.

Tonics, especially iron, are indicated; fresh, warm air, if possible, and a convalescence long enough to restore complete health to the injured leg, are aids to a permanent cure.

As above stated, too much care can not be taken to positively cure an inflammation such as sciatic neuritis, which tends to recur and often causes permanent disability.

New and Nonofficial Remedies

SINCE THE PUBLICATION OF THE BOOK "NEW AND NONOFFICIAL REMEDIES, 1909," THE FOLLOWING ARTICLES HAVE BEEN ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. THEIR ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT AND IN PART ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS TO AID IN THE REVISION OF THE MATTER BEFORE PUBLICATION IN THE BOOK ARE ASKED FOR.

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT SO FAR AS KNOWN IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

(*Continued from page 1499*)

FORMIC ACID—Acidum Formicum.—Acidum formicicum (Pharm. Helvetica, edit. 4; Pharm., Germ. edit. 4).

Formic acid is a liquid containing 24-25 per cent. of anhydrous formic acid (HCOOH).

Formic acid is a clear colorless liquid possessing a sharp acid odor and taste. It has a specific gravity of 1.058-1.061. With lead acetate, formic acid produces a white crystalline precipitate. On warming with silver nitrate a gray turbidity and with mercuric chloride a white turbidity is produced. A solution (1-10) after the addition of a few drops of nitric acid should yield no precipitate with silver nitrate or barium chloride; and after neutralizing with ammonia water calcium chloride or hydrogen sulphide should produce no precipitate. If 1 Cc. formic acid is mixed with 5 Cc. water and 1.5 Gm. mercuric oxide (yellow) and heated on the water bath there will follow an evolution of gas leaving a mixture which when filtered will yield a filtrate which should not react acid (acetic acid). Five Cc. formic acid should quire 27.6 Cc. to 28.8 Cc. normal alkali for neutralization, denoting a content of 24-25 per cent. by weight of 254-265 Gm. anhydrous formic acid per liter. The titrated solution should yield no burned or sharp odor (Pharm. Helv. and Pharm. Germ.).

Action and Uses.—The actions resemble those of acetic acid, but it is more volatile, more irritant and more antiseptic. Formic acid is much more resistant to oxidation, in the body, than the other organic acids, and is therefore excreted to a large extent as formates, in the urine. These have an irritant action on the kidneys and urinary tract, and are diuretic. Large doses cause methemoglobinemia, but the toxicity is quite low. It has no effect on the general circulation or on the motor system, as has been claimed. It has been lauded in a great variety of disorders, but there is no good evidence that its internal use produces any benefits other than psychical. Its external use as a counterirritant is rational, but it possesses no special advantages.

Dosage.—Internally, 1-20 drops of the 25 per cent. acid, largely diluted; or 0.1-0.25 Gm. (1½-4 grains) of sodium formate. Externally usually in a solution containing 1 per cent. of the absolute acid in alcohol or diluted alcohol.

BERBERINE HYDROCHLORIDE—Berberinae Hydrochloridum.—The hydrochloride, $C_{20}H_{17}NO_4HCl + 2H_2O$, of an alkaloid obtained from *Hydrastis canadensis* and *Berberis vulgaris*.

Berberine hydrochloride occurs as bright yellow acicular crystals or amorphous powder, slightly soluble in alcohol to which it imparts a deep yellow color. It is soluble in 300 parts cold water, but dissolves more easily in hot water.

An aqueous solution of berberine or its salts treated with chlorine or bromine water produces a blood red color. Bromine water in excess precipitates the reddish-brown berberine tetrabromid-hydrobromide—$C_{20}H_{17}NO_4.Br_4.HBr$, which is converted by washing with alcohol or heating to 100° to the yellow-brown berberine dibromide-hydrobromide $C_{20}H_{17}NO_4.Br_2.HBr$.

Ammonium sulphide precipitates from an alcoholic solution of berberine sulphate the polysulphide $(C_{20}H_{17}NO_4)_2H_2S_5$ which crystallizes in brown-black needles.

Berberine solutions even if very dilute when treated with potassium iodide solution yield a yellow precipitate of berberine hydroiodide.

Ation and Uses.—Given by mouth, it acts as a bitter stomachic. Very large doses, although not fatal, cause diarrhea, tremors, general weakness, low blood pressure (from depression of vasomotor center and of cardiac muscle), rapid pulse (depression of vagus endings) and respiration. Recovery is slow. Nephritis may be present. Subcutaneous injection kills by paralysis of respiration, with symptoms of asphyxia and paralysis. It has been used as a bitter tonic, against diarrhea and the vomiting of pregnancy and as a febrifuge.

Dosage.—0.06 Gm. to 0.3 Gm. (1 to 5 grains). As much as 20 grains have been taken without obvious effects besides a loose stool.

EMETINE HYDROCHLORIDE—Emetinae Hydrochloridum.—Methyl-cephaeline. The hydrochloride, $C_{15}H_{22}N.O_2.HCl.3H_2O$, of a base found together with cephaeline in Cephaelis Ipecacuanha.

Emetine hydrochloride occurs as a white crystalline powder, soluble in water and alcohol. A freshly prepared concentrated solution of ammonium molybdate in concentrated sulphuric acid is colored brown by emetine; this color changes to violet when a drop of concentrated hydrochloric acid is added. The general alkaloidal reagents precipitate emetine, even from dilute solutions. Alkalies precipitate emetine from aqueous solutions of its salts.

Action and Uses.—Similar to Ipecac, but relatively more nauseant and less emetic, and causing relatively somewhat less renal irritation, but more cardiac depression.

Dosage.—Expectorant, 0.005-0.01 Gm. (1/12-1/6 grain). 0.01-0.02 Gm. (1/6-1/3 grain) causes emesis, but cephaeline is preferred as an emetic.

KERATIN—Keratinum.—A proteid substance which forms the chief part of horns, hoofs, feathers, wool, etc.

To prepare keratin horn shavings are macerated for some days in a mixture of equal parts of ether and alcohol, decanting the liquid and washing the residue with warm water. The washed shavings are then treated with an acid solution of pepsin at 40° C. (104° F.). After further washing with water the residue is dried and powdered.

Keratin occurs as a brownish yellow powder or in transparent white or grayish white scales, tasteless and odorless. It is soluble in concentrated acetic acid, caustic alkalies and ammonia; but insoluble in water, alcohol, ether, dilute acetic acid or acid pepsin solutions. It is decomposed by long boiling under pressure forming a turbid solution with the liberation of hydrogen sulphide. Boiling with dilute sulphuric acid converts it to leucine, tyrosine and other products. On ignition it emits the odor of burning feathers and the remaining carbon is very difficultly burned. On complete combustion the ash should not exceed 1 per cent. 24 hours' digestion with 15 times its volume of ammonia or glacial acetic acid solution at 25°-40° C. (77°-104° F.) should not leave more than 0.3 per cent. insoluble matter.

Uses.—For coating pills to pass the stomach unchanged.

RED GUM—Eucalypti Gummi.—Eucalyptus gum. Eucalyptus Kino.

Red gum is an exudation from the bark of Eucalyptus rostrata, Schlecht, and other species of Eucalyptus.

Red gum occurs in small dark reddish brown opaque and more or less dusty pieces which yield a pale red powder. It is usually collected from artificial incisions. When chewed it is tough, and colors the saliva red. Water dissolves 80-90 per cent. Its chief constituent is tannic acid, to the extent of 47 per cent.

Action and Uses.—Red gum is an active astringent. It is used as an active astringent in sore throat, diarrhea and in catarrhal affections of various mucous membranes. Largely used in the form of lozenges where an astringent is needed in throat affections.

Dosage.—0.1 to 0.3 Gm. (2 to 5 grains).

SODIUM OLEATE[1]—Sodii Oleas.—Sodium oleate, $NaC_{18}H_{33}O_2$, is the sodium salt of oleic acid.

Sodium oleate is obtained by neutralizing sodium hydroxide with oleic acid.

Sodium oleate is a white solid, which crystallizes from absolute but not from aqueous alcohol. When heated it melts and burns leaving a residue of sodium carbonate. It is soluble in about 10 parts of water, in about 20 parts of alcohol, and in about 100 parts of boiling ether. When dissolved in water it is partly decomposed (hydrolysed) into oleic acid and sodium hydroxide; hence its aqueous solution has an alkaline reaction to phenolphthalein; its solution in strong alcohol is neutral to this indicator. It is precipitated from its aqueous solution by saturation with sodium chloride.

Acids separate from its aqueous solution oleic acid, which collects at the surface of the liquid, in an oily layer. If a solution of 5 Gm. of sodium oleate, in 50 Cc. of water be mixed with 3 Cc. of tenth-normal oxalic acid solution, the subsequent addition of a few drops of phenolphthalein test solution should not produce a pink coloration.

An aqueous solution of sodium oleate (1 in 20) should remain unchanged in color upon the addition of ammonium sulphide test solution; and upon acidulating another portion of the solution with hydrochloric acid and filtering, the filtrate should remain unchanged in color when an equal volume of hydrogen sulphide test solution is added and the mixture is allowed to stand well stoppered in a warm place for half an hour (absence of metallic impurities).

Action and Uses.—Sodium oleate is antacid and mildly laxative. It is commonly added to laxative pills. It has been claimed without any definite evidence that it is especially useful in disease of the biliary tract.

Dosage.—0.12 to 1.3 Gm. (2 to 20 grains).

1. This preparation should not be confounded with the preparations sold as "Acid sodium oleate" or "Sodium Oleate, acid" which are mixtures of sodium oleate and free oleic acid, containing from about 5 to 30 per cent. of the latter.

(*To be continued*)

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[For other information see second page following reading matter]

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THE BIOLOGIC ANALYSIS OF GENERAL SENSATION

In view of the great importance of so-called general sensation, or common sensation, in clinical work, particularly in the diagnosis of nervous and visceral diseases, it is rather surprising that we have so often been content with a very uncritical analysis of this sensation complex.

Nearly twenty-five years ago Gaskell from the physiologic side and His from the embryologic side established the now classical four-root theory of the composition of the spinal nerves, recognizing in each pair somatic and visceral motor and somatic and visceral sensory components. More recently Sherrington[1] has elaborated a very fruitful physiologic analysis, dividing the sense organs (receptors) of the body into: (1) interoceptors, or visceral sense organs of the digestive tract and its derivatives; (2) exteroceptors, or somatic sense organs of the outer body surfaces for impressions coming from the outside world, and (3) proprioceptors, sense organs of the muscles, joints, tendons, etc., adapted to report to the central nervous system the exact state of contraction, tension, etc., which these organs experience during function and thereby assisting in the coordination of all somatic movements.

The chief importance of this analysis lies in the emphasis placed on the type of response characteristic of the several receptors. The interoceptors are related through the sympathetic nervous system with visceral muscles; the exteroceptors through the superficial nerves, including the nerves of higher sense, with the somatic or skeletal muscles: the proprioceptors through the deep sensory nerves with reflex arcs leading back to the body musculature. Otherwise expressed, the interoceptive reflexes are visceral responses to visceral stimuli; the exteroceptive sensori-motor system is the apparatus by which the body is able to make adaptive responses to outside stimuli, and the proprioceptive system is for the internal regulation of the exteroceptive mechanism. Naturally, the peripheral and central conduction paths of these three systems have played a dominant rôle in the evolution of the architecture of the nervous system, and the accurate knowledge of these conduction paths is of great clinical importance.

1. The Integrative Action of the Nervous System. New York, 1906.

The detailed analysis of the sensory components of the cranial nerves of vertebrates and their cerebral centers has been effected by a series of researches of the past fifteen years, chiefly at the hands of American comparative neurologists.[2] It seems probable that from the primordial nerves of general sensation of the lowest animals the first differentiation was into visceral (interoceptive) and somatic (exteroceptive) nerves and that each of these was then further subdivided. Some members of both systems of nerves in lower vertebrates are sensitive to chemical stimuli; but in man the chemical sense (taste) seems to be chiefly, if not wholly, represented in the visceral system, its fibers ending in company with more generalized visceral nerves in the nucleus of the fasciculus solitarius. Smell is probably a still more highly differentiated member of the same system.

The exteroceptive and proprioceptive functions of the somatic sensory system were doubtless cotemporaneously differentiated and each was early subdivided into different kinds of sense qualities. The proprioceptive nerves include several sensory types whose functions (for the most part wholly unconscious) are concerned with equilibration, muscular coordination, etc., such as the nerves of muscle spindles, tendons, articular surfaces and deep sensibility in general. The nerves of the semicircular canals are the most highly specialized members of this system (Sherrington). The exteroceptive nerves include contact receptors, serving the sensations of pressure, touch, temperature, etc., and distance receptors (organs of vision and hearing). The contact sensations of the skin, which are frequently classed uncritically in clinical practice in a single category as "general sensation," have been analyzed in a valuable way by the recent clinical and experimental work of Henry Head and his colleagues.

THE PATHOGENESIS OF URINARY CALCULI

Since the demonstration of the infectious basis of gallstone formation we have had many contributions to our knowledge of their pathogenesis, chemistry and structure, which have cleared up this subject to a gratifying degree. Urinary calculi have, during the same period, received less attention from the pathologists and chemists. Just as Naunyn worked out the principles of gallstone formation to a satisfactory conclusion which has stood the test of time, so Ebstein, in his classical monograph on urinary concretions, developed many of the fundamental conceptions of this topic. He showed that the urinary calculi are not simple conglomerations of crystals, but possess an organic framework of characteristic structure, the product of pathologic processes in the urinary tract, in which the crystalline salts are imbedded and held together. Just what conditions are

2. For summaries of this work see Johnston, The Nervous System of Vertebrates, Philadelphia, 1906.

necessary for the production of this complex deposit in the urine has not yet been fully determined, but a recent paper by Schade[1] seems to bring forward a reasonable theory of calculus formation.

He begins by pointing out a fundamental error in earlier considerations of this subject, namely, that of looking on the urinary constituents as existing in simple watery solution. In the light of physicochemical conceptions, urine is more complex than this. It contains always more or less of colloids, including under normal conditions especially the pigments, which greatly modify the solution of the crystalloids. The colloidal substances exist in the condition of colloidal suspension, and consequently present an enormous amount of surface area which has more or less adsorptive power for the crystalloids which are in true solution. When a considerable amount of adsorption takes place in this way, there results at the surface of each colloidal particle a zone in which the crystalloids are more concentrated than elsewhere, and which will always serve as the starting point of crystallization whenever the solution becomes oversaturated. It is because of this adsorptive power that colloids increase the solvent power of urine for uric acid, for the more of the slightly soluble uric acid that is withdrawn from the watery solution by adsorption into colloidal particles the more uric acid can the urine dissolve. When the crystalloid goes out of solution it will, therefore, form crystals or precipitates which are most intimately associated with the colloids, as we see when uric acid crystallizes out of urine taking with it the colloidal pigments by which it is adsorbed. Hence the complex colloidal stroma which is found in every concretion and even in every crystalline deposit which is formed in urine.

It is a well-known fact clinically that a urinary calculus is not nearly so soluble as a simple crystalline mass of the same chemical nature; otherwise we would be able much more easily to dissolve urinary calculi by merely changing the reaction of the urine according to the nature of the calculus. But it is only too certain that uratic calculi will persist in alkaline urine, and oxalate calculi will remain in acid urine without appreciable change. This insolubility Schade explains as due also to the colloidal matrix. If the calculi consisted merely of crystalline deposits, they would dissolve readily, for crystallization is a reversible process. Likewise if the colloid were one that formed reversible precipitates or gels, as mucin which precipitates with acids and redissolves in alkalies, urinary calculi would also be correspondingly soluble; but if the colloidal matrix is one that forms precipitates or gels that are not reversible, then resolution of the calculus is difficult.

Such a colloid is fibrin, and Schade found that he could produce experimentally with calcium salts and fibrinogen, masses of salts which became progressively harder and stonelike, and which had the same structural arrangement of matrix and crystals as is characteristic of calculi. Therefore, he urges the importance of inflammatory exudation in the formation of urinary calculi. Normal urine contains no irreversible colloids, and hence does not form concretions; but any inflammatory exudation taking place in any part of the urinary tract introduces fibrinogen, and conditions become suitable for the formation of irreversible deposits of any crystalloid with which the urine may at the time be saturated or oversaturated. Possibly other colloids may have the same property, but probably fibrinogen is the most important. Much of practical significance for the prevention and treatment of urinary calculi would seem to lie in these suggestions of Schade's, which point out some of the reasons for existing disagreement between theory and practice.

The solubility of concretions depends on entirely different laws from that of the simple crystalline deposits which never form concretions, yet hitherto we have attempted to find solvents for calculi on the basis of our experience with the solubility of simple crystalline formation, and have met with failure. Possibly a better understanding of the nature of calculus formation will help us toward the goal of solvent treatment.

1. Münch. med. Wchnschr., 1909, lvi, 3.

A BRITISH COUNCIL ON PHARMACY AND CHEMISTRY

While it is possible that the medical profession of Great Britain has not been exploited by proprietary medicine promoters to quite the extent that has been the case in this country, yet the proprietary evil there is a serious and a growing one. That British medical men are beginning to wake up to this fact is evident from one of the "notices of motion" put forward by the South-Eastern of Ireland Branch of the British Medical Association, to be acted on at the annual meeting of the association to be held in July.

This notice proposes "that the council be requested to appoint a Materia Medica Committee, whose duty it will be, with such professional aid as they can summon to their assistance, to investigate and pronounce on the uses and properties of all drugs which shall be used by the profession; and, in view of the grave injury inflicted on the public and on the profession alike by the present wholesale introduction of drugs by mere commercial firms, whereby the ground is being cut from under our feet, and the gullible public are induced to accept nostrums on the sole strength of mere assertions, that the hospitality of our museum and the pages of our *Journal* shall both be shut out from giving any further aid to the wholesale advertisements of drugs and preparations, the virtues of which have too often no existence save in the mendacity of their introducers."

It will be seen that the proposed Materia Medica Committee is practically identical with the Council on Pharmacy and Chemistry of the American Medical Association. The need of such a committee is evident;

should it be appointed, it will do much to limit the sale of nostrums as "ethical proprietaries." Since the work of the Council and the campaign carried on by The Journal have given American nostrum makers a substantial set-back, it has been the policy of these gentlemen to transfer their activity to the other side of the Atlantic. When a similar campaign is waged in the British Isles, the discomfited manufacturers will have no place to go. The Anglo-Saxon countries have been the last to regulate the traffic in nostrums, but the field of operation for this business is slowly but surely narrowing.

In passing, it might be said that when the suggested body begins its work, the *British Medical Journal* will, perforce, lose some of its regular advertisers. Nevertheless, this loss of revenue to the association's organ will be more than compensated by the gain to the profession generally.

A STUDY IN THE INCONSISTENCY OF THE ANTI-VIVISECTIONISTS

The inconsistency in operation of the basic emotional activities which are the springs of human action is well brought out in an editorial in *La Follette's Weekly Magazine* for April 10, entitled "False Mercy and Real Cruelty." "If a horse had been tied on the street in Washington on inauguration day," says *La Follette's*, "its owner would have been arrested for cruelty." Yet, the article goes on to point out, on the same day 800 men of a Massachusetts coast artillery organization were kept shivering and stiff for two hours or more in the storm, waiting for the parade to move, then marched for five hours in a blizzard, and quartered without beds on the floor in a cold and miserable armory. It is scarcely to be wondered at that 100 of them became ill, mostly with pneumonia, and that a score or so died. Some years ago on a similar occasion 75 men died from a similar cause. "If 75 sparrows had been tortured for five hours for somebody's pleasure," comments *La Follette's*, "the conscience of the nation would have been shocked." Verily, a sensitive conscience is an elastic term when applied to communities, and recalls to mind the distinction finely drawn by Jane Austen in "Sense and Sensibility."

It is but natural that the article should pass on to the consideration of an analogous inconsistency—that of the supersensitive souls who would fain abolish all experimentation on animals. Says *La Follette's*, "The animals, of course, are not experimented on for pleasure, or to make a parade, but for the sake of the knowledge and cure of diseases. The animals are put under ether or chloroform, and the operations are usually painless. The average dog used in educating physicians and surgeons dies with infinitely less suffering than that endured by any one of the Massachusetts soldiers as he shivered the night through in a bedless armory—to say nothing of the marching and pneumonia—and he dies for a good and, to most people, a sufficient reason. Dogs, cats, rabbits, and guinea-pigs should not be killed, even under anesthesia, wantonly or for no reason. But if the question is not whether the animal experiments shall stop, but whether the animals experimented on are to be dumb animals or men, women and children, then we may ask whether human beings are not worth more than dogs or guinea-pigs.

"The antitoxin that cures diphtheria, the Pasteur hydrophobia treatment, the Koch tuberculin test for consumption, the knowledge that protects us from disease generally, the prevention of disease in live stock, the use of ether, chloroform and cocain, which make dentistry and surgery painless, all have been discovered by and depend on animal experiments. Had it not been for them we should not yet have learned that the blood circulates, or the use of the heart, or the functions of the nerves; we should still be calling in magicians to cast out the devils when we are ill, and hanging the witches believed to torment us with pains and aches. Protect the animals—certainly. But do not force science to practice on us rather than on them. Protect the horses—certainly. But remember that a man is worth more than many horses. Don't be so falsely merciful that you reach real cruelty."

It is an admirable thing when a man of public affairs, possessed of an unusual capacity for "straight talk," is imbued also with a breadth of view in the search for knowledge concerning that whereof he talks, that shall enable him to use it wisely and well.

RESIDUAL TYPHOID FEVER

Not long ago it was generally considered that practically all cases of typhoid were due to polluted drinking water, and some enthusiasts even ventured the statement that the amount of typhoid in a city affords a very fair idea of the purity of its public water supply. The acquisition of new data, however, is bringing about in this field, as in so many others, what might almost be styled a reversal of opinion. Not that there is any doubt on the part of any competent authority as to the large part sewage-contaminated water has played and is still playing in the transmission of typhoid fever, but there is no longer a tendency to minimize or to ignore other causes. One really astonishing circumstance is that after an infected water supply has been purified or replaced by a purer source the residuum of typhoid fever is still very great. A recent Harvey lecturer has drawn attention to the fact that in most cities in the United States, even after a pure water supply has been secured, the typhoid fever death rate has remained at least five or six times as high as in European cities of similar rank.[1] Point has been given to this situation by the well-known experience of the city of Washington, D. C., which has had the keen disappointment of seeing its typhoid rate remain prac-

1. Jordan: The Journal A. M. A., Feb. 15, 1908, 493.

tically stationary after the installation of a well-built and efficiently operated filter plant.

Longley[2] has now thrown some new light on the Washington problem by showing that there is a reasonable doubt whether even in years past the Potomac water supply was really responsible for the general prevalence of typhoid fever in the District of Columbia. Sedimentation of the river water, which has been believed by many sanitarians to explain the fluctuations in typhoid fever in Washington, is considered by Longley, after careful analysis of the data, to have had little or no share in bringing about the conditions observed. There is, in his opinion, no marked relation between the period of sedimentation and the typhoid death rate in Washington. This conviction is strengthened by the remarkable parallelism which Levy and Freeman have shown to exist between the typhoid fever curves in Washington and in Richmond, Va. In Richmond the water supply has remained unchanged during a period of nearly thirty years, and yet the years of rise and fall of the typhoid death rate in the two cities coincide in a manner that suggests the operation of some common cause.

What explanation can be given for the non-water-borne typhoid fever? There is no doubt that a certain proportion of it can be accounted for by milk infection, by fly infection, by contact through the agency of carriers and in other ways with which recent investigation has made us familiar, but when all is said there is still an unexplained residuum. The proportion of typhoid not traceable to acknowledged sources of infection is apparently greater in some localities than in others. It is a tempting speculation that meteorologic conditions in some way influence individual susceptibility, but it can hardly be said that there is any strong evidence for this view. The coincidence in the typhoid curve in cities with dissimilar sanitary conditions might seem to support this hypothesis, but there are obviously other possibilities. The questions raised are certainly important and hardly to be dismissed as of theoretical interest only.

SMOKE CONSUMPTION

The unwholesome effect, psychical and physical, exercised by a sunless smoke-laden atmosphere has long been recognized. The crux of the problem has been to render smokeless combustion not merely experimentally possible, but commercially practicable. Smoke in cities is undoubtedly an immense extravagance for the community, having a deleterious effect on many marketable commodities, as well as on the health and strength of the inhabitants. It is a direct loss to the consumer of coal, too, for smoke means waste fuel. Yet the attempts to make smokeless combustion an actual, as well as a theoretical, economy to the one who pays the coal bills have been only partially successful in the past. It is now asserted that the United States Geological Survey Experiment Station at Pittsburg, Pa., has succeeded in solving the problem and in that smoky city is now operating its plant absolutely without smoke, even though burning a coal considered refuse by the trade and costing, delivered at the station, 88 cents a ton. Moreover, over two hundred industrial plants in the larger cities of the country are now being operated without smoke, and with a gain in economy. The solution of the whole problem appears to depend, not on any particular form of furnace, but on the simple principle that "stokers or furnaces must be so set that the combustion shall be complete before the gases strike the heating surface of the boiler"; otherwise sudden cooling, with checking of combustion, will ensue. Absolutely and invariably satisfactory results are said to depend on the installation of mechanical stokers, as the personal element in firing is too variable to be relied on. The report of the experts who had immediate charge of the government investigation will shortly be issued by the Geological Survey as a bulletin, which will doubtless prove valuable reading for sanitary medical officers and engineers. If it can be demonstrated that, as the Geological Survey maintains, "in 50 per cent. of the industrial plants of the United States more than 10 per cent. of the coal bill can be saved each year by the smokeless burning of coal, and 5 per cent. in the other plants," our cities will soon enjoy a purer air and a brighter sky than they have known for many a long day.

2. Eng. News, Apr. 22, 1909, p. 493.

Medical News

ILLINOIS

Home for Nurses Donated.—James A. Patten has donated $40,000 for the erection of a home for nurses of the Evanston Hospital. The structure will be connected with the main hospital building and will provide accommodation for 40 employés, including nurses and internes.

Hospital Appropriation.—The omnibus appropriation bill which passed the house early this week gives the State Board of Health $46,000 for the free distribution of antidiphtheric serum throughout the state. The last general assembly appropriated $30,000 for this purpose.——The State Board of Health has already been allowed $4,000 for the free treatment of poor persons said to have been bitten by rabid animals or otherwise in danger from infection from hydrophobia.——The appropriations for the State Board of Health have been materially increased.

Personal.—Dr. George S. Duntley, Bushnell, has succeeded Dr. William E. Haines, resigned, as local physician for the T. P. & W. Railway.——Dr. Alvard G. Durkee, Pontiac, is at St. James Hospital, recovering from an operation for appendicitis.——Dr. Homer M. Little, East St. Louis, has returned after eighteen months abroad. While in Vienna, Dr. Little was elected secretary-treasurer of the American Medical Association of Vienna.——Dr. Albert N. Mueller has been appointed health commissioner of Rock Island, and Drs. William H. Ludewig, Michael J. O'Hern, Frank H. First and Joseph R. Hollowbush have been appointed members of the board of health.

Legislative Progress.—Senate Bill No. 214, to create a state board of osteopathy, was defeated in the house May 19, by a vote of 72 to 45. The "osteopathic lobby" claimed 100 votes for this bill, which at one time seemed assured of passage. ——On May 21 the house set its disapproval on optometry by killing House Bill No. 576, which received only 28 of the 77 votes required for passage. There is still another osteopathic

bill, Senate Bill No. 351, which passed the senate two weeks ago. This bill is even more objectionable than Senate Bill 214, and is at its second reading in the house. The State Board of Health and the legislative committee of the state medical society are of the opinion that this bill will not become a law.

State Medical Society Meeting.—The fifty-ninth annual meeting of the Illinois State Medical Society was held in Quincy, May 18-20. The following officers were elected: President, Dr. J. Leaming Wiggins, East St. Louis; vice-presidents, Drs. Clifford U. Collins, Peoria, and James E. Stubbs, Chicago; secretary, Dr. Edmund W. Weis, Ottawa (re-elected); treasurer, Dr. Everett J. Brown, Decatur (re-elected); councilors, Drs. Malcolm L. Harris, Chicago, Carl E. Black, Jacksonville, and Henry C. Mitchell, Carbondale; delegates to the American Medical Association, Drs. Frank Billings and Charles S. Bacon, Chicago, and James W. Pettit, Ottawa; alternates, Drs. Samuel C. Stremmel, Macomb, W. K. Newcomb, Champaign, Joseph R. Hollowbush, Rock Island, Edwin W. Ryerson, Chicago, and Alfred C. Haven, Lake Forest; committee on public policy, Drs. Robert B. Preble and William L. Baum, Chicago, and Carl E. Black, Jacksonville; committee on medical legislation, Drs. Charles J. Whalen, Chicago, Milton S. Marcy, Peoria, and Lewis C. Taylor, Springfield; and chairman of the medicolegal committee, Dr. Harold N. Moyer, Chicago. Danville was selected as the place of meeting for 1910.

IOWA

Personal.—Dr. James P. Lane has been elected health officer of Cascade.——Drs. John W. Reynolds and Cleve Coakley, Creston, and Dr. Oliver S. Barber, Kent, will open a hospital in Creston in a few weeks.——Dr. Henry J. Prentiss, professor of anatomy in the State University College of Medicine, Iowa City, has declined an offer to return to his former work at Bellevue Hospital Medical College, New York City.

Medical Women Meet.—At the twelfth annual meeting of the State Society of Iowa Medical Women, held in Dubuque, May 18, the following officers were elected: Dr. Lenna L. Means, Des Moines, president; Drs. Kate S. Harpel, Boone, and Pauline Myers-Townsend, Marshalltown, vice-presidents; Dr. Lena A. Beach, Cherokee, secretary, and Dr. Clara B. Whitmore, Cedar Rapids, treasurer. At the annual banquet Dr. Julia M. Donahue, Burlington, presided as toastmistress.

State Society Meeting.—At the fifty-eighth annual meeting of the Iowa State Medical Society, held in Dubuque, May 19-21, the following officers were elected: President, Dr. George E. Crawford, Cedar Rapids; vice-presidents, Drs. Nelson M. Voldeng, Cherokee, and Henry H. Clark, McGregor; secretary, Dr. Vernon L. Treynor, Council Bluffs; treasurer, Dr. William B. Small, Waterloo, and delegate to the American Medical Association, Dr. Arthur L. Wright, Carroll. Des Moines was selected as the next place of meeting.

KANSAS

New Hospital.—The Sisters of St. Agnes will establish and equip a hospital at Hays, to be owned by the sisters, but to be open to the sick of all creeds and beliefs.

Personal.—Dr. Joseph F. Wallace, Leavenworth, has been selected as superintendent of the sanatorium for tuberculosis which is being established by the Modern Woodmen of America, near Colorado Springs.——Dr. Sherman LaB. Axford, Burlington, has been appointed physician to the state penitentiary, Lansing.

Councilors Elected.—At the annual meeting of the Kansas Medical Society, the following councilors were elected: First District, Dr. Charles W. Reynolds, Holton; Second District, Dr. W. Preston Sterret, Kansas City; Third District, Dr. Hugh B. Caffey, Pittsburg; Fourth District, Dr. Ora P. Davis, Topeka; Fifth District, Dr. William E. Currie, Sterling; Sixth District, Dr. Archibald D. Jones, Wichita; Seventh District, Dr. F. M. Daily, Beloit; Eighth District, Dr. Oliver D. Walker, Salina; Ninth District, Dr. Chauncey S. Kenney, Norcatur; Tenth District, Dr. Ernest J. Beckner, Selden; Eleventh District, Dr. John A. Dillon, Larned; and Twelfth District, Dr. William F. Fee, Mead.

Society Meetings.—At the semi-annual meeting of the Southeast Kansas Medical Society, held in Parsons April 13, Dr. Edward B. Payne, Fort Scott, was elected president; Dr. Giles A. Blasdel, Garnett, secretary, and Dr. Millard F. Jarrett, Fort Scott, treasurer.——Physicians of Lynn county have effected a medical organization and elected the following officers: President, Dr. David E. Green, Pleasanton, and secretary-treasurer, Dr. Howard L. Clarke, LaCygne.——A committee from the Sedgwick County Medical Society appeared before the mayor of Wichita, April 22, and requested that the secretary of the City Board of Health be given a position in the city hall, and that he take over the duties now devolving on the city physician and police surgeon and also the duties of city pathologist and bacteriologist, registrar of vital statistics, supervisor of sanitation of city schools, and local statistician for the State Board of Health.

KENTUCKY

Tuberculosis.—As the result of "Ten Cent Day," an idea conceived by Mrs. L. H. Wyman, Louisville, to raise funds for the work against tuberculosis, nearly $2,000 was collected May 18, and it is anticipated that the total receipts will exceed $3,000.

Damage Suits.—The Court of Appeals is reported to have ruled that Dr. Fouche W. Samuels, Louisville, pay Mary Willis damages of $3,500. She claimed that he had left a sponge in her abdomen after laparotomy.——Judge Gordon May 19 gave instructions to the jury to find for the defendant in the case of Annie Edelen against Dr. Edgar W. Stokes, Louisville, who was sued for $5,000, the plaintiff alleging that the defendant had failed properly to treat a fracture of the wrist.

Personal.—Dr. Lewis S. McMurtry, Louisville, has had conferred on him the degree of LL.D. by his alma mater, the Tulane University of Louisiana.——Drs. Clyde A. Eckler, Dry Ridge, Joseph L. Price, Sherman, and Americus V. Menefee, Williamstown, have been appointed members of the Grant County Board of Health, and Dr. Menefee has been made health officer of the county.——Dr. John Wood, assistant physician at the Central Kentucky Hospital for the Insane, Lakeland, resigned May 18, on account of ill health.

LOUISIANA

Site Purchased for Sanitarium.—The Hicks homestead, with about twelve acres of land at Shreveport, has been sold to the Sisters of the Incarnate Word for $30,800. On this site will be erected the new Schumpert Memorial Sanitarium, to cost $10,000, in memory of the late Dr. T. Edgar Schumpert.

Hospital Report.—At the annual meeting of the board of trustees of the Eye, Ear, Nose and Throat Hospital, New Orleans, April 20, the present administration was re-elected by unanimous vote. The total number of patients treated during the year was 7,838, or 1,147 more than for the preceding year, distributed as follows: Eye department, 3,552; ear, nose and throat department, 4,191; dermatological department, 95. Included in these were 686 emergency cases. The total number of consultations for the year was 53,687, an increase of 9,731 over last year. The maximum daily number of patients was 297, and the maximum number of new cases 74. During the year 1,657 operations were performed.

Society Meetings.—At the annual meeting of St. Landry Parish Medical Association, held in Opelousas, April 15, Dr. Robert G. Hawkins, Palmetto, was elected president; Dr. Paul Foster, Lewisburg, vice-president; Dr. L. Lazaro, Washington, secretary; Dr. William R. Boudreau, Washington, treasurer, and delegates to the state society, Drs. L. Lazaro, Washington, and J. C. Vidrine, Villeplatte.——Claiborne Parish Medical Society, at its annual meeting at Homer April 13, re-elected the following officers: President, Dr. Joseph W. Day, Homer; vice-presidents, Drs. Phillip Gibson, Homer, James F. Simpson, Athens, and Lee T. Waller, Haynesville, and secretary-treasurer, Dr. William L. Stone, Homer.——At the April meeting of Bienville Parish Medical Society Dr. Shelton I. Colvin, Gibsland, was elected delegate to the state medical society.

MARYLAND

County Association Meeting.—The annual meeting of Baltimore County Medical Association was held in Towson, May 20. Dr. Bennet F. Bussey, Cockeysville, was elected president; Dr. H. J. Jarrett, Towson, vice-president; Dr. Richard C. Massenburg, Towson, corresponding secretary; Dr. Josiah S. Bowen, Mount Washington, recording secretary; and Dr. William L. Smith, Sherwood, treasurer; and Drs. H. Lewis Naylor, Pikesville, and L. Gibbons Smart, Lutherville, were elected delegates to the Medical and Chirurgical Faculty of Maryland. The retiring president, Dr. Richard F. Gundry, Catonsville, in his address, made an urgent plea for the care of the indigent insane of the state.

Baltimore

Commencements.—The address at the commencement exercises of the University of Maryland, May 31, will be delivered by Dr. John A. Wyeth, New York City, who will also

receive from the university the honorary degree of LL.D.——At the annual commencement exercises of Baltimore Medical College, May 25, a class of 57 was graduated. Hon. J. Charles Linthicum presented the prizes, and ex-Governor Warfield delivered the address to the graduates.

Personal.—Dr. J. Canby Robinson has returned after a year in Germany.——Dr. Thomas S. Cullen sailed for Europe May 21.——Dr. Thomas H. Buckler will spend the summer abroad. ——Dr. Samuel C. Chew has recovered from his recent illness. ——Dr. Daniel W. Cathell has been elected president of the Baltimore Eastern Dispensary.——Dr. John C. Hemmeter has been named as one of the committee of patrons for the dedication of the monument to Michael Servetus, in Vienne, near Lyons, France, August 14.

Money for Charities.—As the result of a charity congress held by the Baltimore Judaic Union, $1,400 was realized, which will be devoted to the establishment of a free dispensary in East Baltimore.——By the will of Miss Frances Donaldson, the Church Home and Infirmary received a bequest of $5,000 for the endowment of a bed.——Harry E. Meyer has given $10,000 to the Jewish Home for Consumptives, to be used for the erection of an additional cottage on the grounds of the institution near Baltimore.

MASSACHUSETTS

Gift to Hospital.—By the will of the late Miss Elizabeth Fay Brigham, Brookline, $1,500,000 has been bequeathed to establish the Brigham Hospital for Incurables.

Wednesday Half Holiday.—The physicians of Lawrence, Methuen, Andover, and North Andover, have decided almost unanimously to close their offices on Wednesdays at 1 p. m., beginning July 1.

Bequests.—By the will of Mrs. Effa E. Brown, East Kingston, filed May 12, a bequest of about $30,000 is made to the Lawrence General Hospital.——By the will of the late Dr. Frank W. Draper, Brookline, the income of the estate is eventually to be paid to Harvard University.

Personal.—Dr. Elmer E. Southard, Danvers, has been appointed pathologist to the Massachusetts Board of Insanity. ——Dr. Robert W. Lovett has been appointed assistant professor of orthopedic surgery, Dr. Charles A. Porter, assistant professor of surgery, and Dr. Edward H. Nichols has been reappointed assistant professor of surgical pathology in Harvard Medical School.

Carnation Day.—As the result of "Carnation Day" in Lynn, on which 27,000 carnations were sold for the benefit of the Day Camp for Consumptives, Swampscott, $2,750.08 was raised. The camp will be opened as soon as the buildings can be put in condition for the reception of patients. On account of the success of the attempt, the committee has decided to establish the second Saturday in May in each year as "Carnation Day" for the benefit of the camp.

State Medical Society Meeting.—The one hundred and twenty-eighth annual meeting of the Massachusetts Medical Society will be held June 15 and 16 in Boston. The sectional meetings will be held in the Medical Library on the Fenway on June 15. In the evening the Shattuck Lecture on "The Widening Sphere of Medicine" will be delivered by Dr. Edward W. Taylor, Boston, and at the close of the lecture, a reception will be given to the president. On the second day, the annual discourse will be given by Dr. James G. Mumford, Boston, and at the close the annual dinner will be served.

Alumni Day at Harvard.—Alumni Day was celebrated at Harvard Medical School, May 20. In the evening the triennial dinner occurred, at which ex-President Eliot urged the necessity of a campaign of education so that the people may see vivisection and "new superstitions" in the right light. Lieutenant Governor Frothingham extended a welcome on behalf of the Commonwealth to the visitors from various parts of the country, and lauded the medical men holding state positions in Massachusetts. President Lowell, of Harvard, in his talk, stated that what the medical school of Harvard needed and should have, was a larger student body. Dr. William Osler, Oxford, England, advised that Harvard be remodeled on the lines of the medieval universities of Bologna and Padua. He thought the average age for Harvard medical graduates, 24, was too advanced, and should not be more than 23. He believed Harvard Medical School to be only half finished, as it had no hospital attachment. There should be a hospital as great as the school itself, and it should be a part of the university. Dr. Henry A. Christian, dean of the school, asked the cooperation of every alumnus in improving the institution. Major General Leonard Wood, U. S. Army, an alumnus of the school, delivered an address on what the medical profession is doing in Porto Rico, Cuba, and the Philippines, and credited the profession with doing more than any other class excepting school teachers, to reconcile the people of the islands to American institutions. He urged young graduates to serve a while in the Army in the insular possessions to perfect their knowledge of tropical diseases, and finally endorsed the suggestion of the dean for the establishment of a professorship of tropical diseases in the university.

Elections.—At the annual meeting of Worcester North District Medical Society, held in Fitchburg, April 27, Dr. Eustace L. Fiske, Fitchburg, was elected president; Dr. William N. Cowles, Ayer, vice-president; Dr. Walter F. Sawyer, Fitchburg, secretary; Dr. Frederick H. Thompson, Jr., Fitchburg, treasurer; Dr. Luther G. Chandler, Townsend, commissioner of trials, and Dr. Atherton P. Mason, Fitchburg, librarian.——Hampden District Medical Association, at its annual meeting, held April 20, in Springfield, elected the following officers: President, Dr. Charles W. Jackson, Monson; vice-president, Dr. Harvey W. Van Allen, Springfield; secretary-treasurer, Dr. Richard S. Benner, Springfield; supervising censor, Dr. Vincent J. Irwin, Springfield; censors, Drs. George L. Taylor, Holyoke, Frederick S. Ward, Springfield, William C. Leary, Springfield, and J. H. Schneider, and commissioner of trials, Dr. Philip Kilroy, Springfield.——Plymouth District Medical Society, at its annual meeting, April 21, in Brockton, elected Dr. Frederick J. Ripley, president; Dr. Charles S. Millet, vice-president, and Dr. Alfred C. Smith, secretary, all of Brockton. ——At the annual meeting of the Middlesex North District Medical Society, held in Lowell, the following officers were elected: President, Dr. Clarence A. Viles; vice-president, Dr. Omer P. Porter; secretary, Dr. Archibald R. Gardner; treasurer, Dr. Thomas B. Smith; librarian, Dr. Patrick J. Meehan, all of Lowell, and commissioner of trials, Dr. Frederick E. Varney, North Chelmsford.——At the annual meeting and dinner of the Dorchester Medical Society, April 28, Dr. Robert M. Merrick was elected president; Dr. M. Vassar Pierce, vice-president; Dr. Edward J. Brearton, secretary-treasurer. ——The Berkshire District Medical Society, at its annual meeting, held in Pittsfield, April 29, elected Dr. Harry B. Holmes, Adams, president; Dr. Clifford S. Chapin, Great Barrington, vice-president, and Dr. Isaac S. F. Dodd, Pittsfield, secretary-treasurer.——Franklin District Medical Society held its annual meeting, May 12, in Greenfield, and elected Dr. Charles L. Upton, Shelburne Falls, president; Dr. Leroy A. Newton, Greenfield, vice-president; Harry N. Howe, Greenfield, secretary-treasurer, and Dr. Francis E. Johnson, Erving, commissioner of trials.

MICHIGAN

Acquitted on Charge of Perjury.—In the case of Dr. George A. Fritch, Detroit, charged with the commission of perjury in a death certificate, the charges were dismissed April 2, and the judge is said to have criticized the prosecutor severely from the bench.

March Mortality.—During March 3,524 deaths were reported, equivalent to an annual death rate of 15.6 per 1,000 of population. Among these were 696 infants under 1 year; 212 children from 1 to 4 years of age, and 1,180 individuals of 65 years of age or over. Among the important death causes were pneumonia, 355; tuberculosis, 256; cancer, 163; violence, 154; influenza, 71; meningitis, 47; diarrheal diseases of infants, 43; typhoid fever, 41; measles, 35; whooping cough, 32; diphtheria, 31, and scarlet fever, 14.

MISSISSIPPI

Hospital Notes.—The need of a central general hospital in the state has resulted in the organization of the Jackson Hospital and Sanatorium Company with a paid-up capital stock of $50,000, by Drs. Julius Crisler, Christopher H. Herbert and others. The charter has been approved and the extension and addition to the present sanatorium plant will be undertaken promptly.

MISSOURI

Antituberculosis Campaign.—At a meeting of the St. Joseph-Buchanan County Medical Society, held April 22, plans were outlined for the organization of a society for the prevention of tuberculosis, and for the establishment of an outdoor ward at St. Joseph's Hospital for both city and county patients.

Sanatorium Officers.—The newly-elected board of managers of the Missouri State Sanatorium for Incipient Tuberculosis, Mount Vernon, at its meeting May 8, elected the following officers: President, Dr. William Porter, St. Louis; medical director, Dr. Edward W. Schauffler, Kansas City; vice-president, F. H. Miner, Aurora; secretary, W. L. Gupton, Montgomery City; auditor, W. T. Craig, Galena; superintendent,

Dr. Orville H. Brown (reelected), and assistant superintendent, Dr. George W. Orrick, Rolla.

State Society Meeting.—The opening address at the fifty-second annual meeting of the Missouri State Medical Association, held in Jefferson City, May 18-20, was delivered by Dr. J. N. McCormack, Bowling Green, Ky. The House of Delegates met and the general and medical sessions were held in the House of Representatives, and the surgical section met in the Senate Chamber. The following officers were elected: President, Dr. Tinsley Brown, Hamilton; vice-presidents, Drs. John M. Bell, St. Joseph; James A. Harris, Mount Vernon; Herbert C. Schobe, Paris; Bernard W. Hays, Jackson, and Jefferson L. Thorpe, Jefferson City; secretary, Dr. Andrew W. McAlester, Kansas City (re-elected); treasurer, Dr. J. Franklin Welch, Salisbury; delegates to the American Medical Association, Drs. Walter B. Dorsett and Edward J. Goodwin, St. Louis; orator in medicine, Dr. Nimrod P. Wood, Independence, and orator in surgery, Dr. Francis Reder, St. Louis. Hannibal was selected as the place of the next annual meeting.

MONTANA

State Tuberculosis League.—A meeting was held in Missoula, May 12, at which the Montana Antituberculosis League was organized with the following officers: President, Dr. William F. Cogswell, Livingston; vice-president, Mrs. T. J. Walsh, Helena; secretary, Dr. Thomas D. Tuttle, Helena; and treasurer, Dr. Mary B. Atwater, Helena.

State Board Election.—At the meeting of the State Board of Medical Examiners, held April 28, in Helena, the following officers were elected: President, Dr. Frederick M. Poindexter, Dillon; secretary, Dr. William C. Riddell, Helena, and treasurer, Dr. Sidney A. Cooney, Helena.——Dr. George B. Owen, Butte, has been appointed a member of the board.

State Medical Society Meeting.—At the thirty-first annual meeting of the Montana State Medical Association, held in Missoula, May 12 and 13, the following officers were elected: President, Dr. Thomas D. Tuttle, Helena; vice-presidents, Drs. John J. Buckley, Missoula; Frederick Cuttle, Hunter's Hot Springs, and Fritz E. Buchen, Hamilton; secretary, Dr. Herbert D. Kistler, Butte, and treasurer, Dr. Creswell T. Pigot, Butte. Hunter's Hot Springs was decided on as the next place of meeting.

Regulations for Car Sanitation.—Regulations have been issued by Dr. Thomas D. Tuttle, secretary of the State Board of Health, governing sanitation and ventilation of passenger cars in Montana. These regulations are the result of a conference between the State Board of Health, railway officials and state railroad commission. The rules provide that no person with a contagious or infectious disease shall enter a public conveyance except a hack, and then only after the person in charge of the hack has been notified. Train conductors are charged to notify health officers when they discover cases of contagious or infectious diseases on their trains, and the local health officer may, at his discretion, remove such persons from trains and hold them in quarantine until disinfected. Spitting and throwing refuse on floors of cars is prohibited. Waiting rooms, smoking rooms and cars must be provided with cuspidors, and water for car tanks is not to be used without the approval of the board of health when a waterborne disease has developed in epidemic form in the municipality.

NEBRASKA

Personal.—The governor has appointed the following four secretaries for the State Board of Health in the so-called "defective act" of the last legislature: Dr. Archibald L. Muirhead, Omaha, two years; Dr. Clifford P. Fall, Beatrice, four years; Dr. Herschell B. Cummins, Seward, three years, and Dr. E. Arthur Carr, Lincoln, one year.——Dr. Malcolm Stewart has been appointed city physician of Tecumseh.——Dr. and Mrs. Lester M. Stearns, Kearney, sailed for Germany May 13.

State Tuberculosis Association.—At the annual meeting of the Nebraska Association for the Study and Prevention of Tuberculosis, held in Omaha, May 7, the following officers were elected: President, Dr. Harold Gifford, Omaha; vice-president, Dr. Francis A. Long, Madison; and executive committee, Mrs. K. R. Edholm, Omaha; Dr. Solon R. Towne, Omaha; Prof. H. B. Ward, Lincoln; Father Reusing, West Point; Mrs. Draper Smith, Omaha; Dr. Charles O. Giese, Holdrege, and Dr. Adrian F. Burkhard, Omaha.

Medical College Closes.—Dr. James F. Stevens, dean of the Nebraska College of Medicine, Lincoln, an affiliated school of the Nebraska Wesleyan University, in a letter to Dr. Ernest J. C. Sward, secretary of the State Board of Health, notifies him that after careful consideration, the board of directors of the college has decided to close its doors to students and permanently retire from the field. The chief reason stated for the discontinuance was that Lincoln did not furnish the advantages which a college of medicine should have.

Graduation Exercises.—On May 20 the annual commencement exercises of the University of Nebraska, College of Medicine, Omaha, were held, when a class of nine was graduated and the annual address was delivered by Dr. William W. Keen, Philadelphia.——The seventeenth annual commencement of Creighton Medical College, Omaha, was held May 1, and a class of 29 was graduated. The degrees were conferred by the president, Eugene E. Magevney, and Dr. Archibald L. Muirhead, vice-dean of the school, delivered an address on "Thoroughness." At the annual banquet, Dr. Frank E. Coulter presided as toastmaster.

Organization of Hospital Staff.—The organization of the staff of the Douglas County Hospital, Omaha, has been effected by the county commissioner. The position of chief of staff has been done away with, and an executive council has been substituted, composed of Drs. Herschel P. Hamilton, Palmer Findley, and Frederick W. Lake. Dr. Wilson O. Bridges has been appointed consulting physician and the heads of departments are Dr. Paul G. Woolley, pathology; Dr. Solon R. Towne, hygiene and sanitation; Drs. Frederick W. Lake and Rudolph Rix, diseases of children; Dr. Palmer Findley, gynecology; Dr. Frank E. Coulter, mental and nervous diseases; Dr. Alonzo E. Mack, obstetrics; Dr. Frank S. Owen, diseases of the eye and ear; Dr. William F. Milroy, medicine, and Dr. Herschel P. Hamilton, surgery.

NEW HAMPSHIRE

State Society Election.—At the one hundred and eighteenth annual meeting of the New Hampshire Medical Society, held in Concord May 13 and 14, Dr. John B. Deaver, Philadelphia, delivered the oration on surgery, and Dr. Thomas M. Rotch, Boston, the address on medicine. The following officers were elected: President, Dr. Frank Blaisdell, Goffstown; vice-president, Dr. Alonzo S. Wallace, Nashua; councilors, Drs. Herbert K. Faulkner, Keen; Emery M. Fitch, Claremont, and Frederic Von Tobel, Lebanon; trustee, Dr. Silas M. Dinsmore, Keene; examiner, Dr. James T. Greeley, Nashua; delegate to the American Medical Association, Dr. Ferdinand A. Stillings, Concord, and alternate, Dr. William E. Reed, Nashua. At the annual banquet, Dr. Howard N. Kingsford, Hanover, officiated as toastmaster.

NEW YORK

To be Sued for Death of Physician.—It is announced that the city of Troy is to be called on to defend a suit for damages for $150,000 for the death of Dr. Harry O. Fairweather, who died recently as the result of a fall from a ladder which broke while he was fighting a fire as a member of the volunteer fire department, the ground of suit being that death was brought about through the negligence of the city.

Bills Become Laws.—Governor Hughes has signed the Woods bill requiring death and birth certificates to be forwarded by local health boards to the State Bureau of Vital Statistics on or before the fifth day of each month. Under the present law no time is specified.——The Davis bill has also been signed prohibiting physicians who receive a salary from the state from taking fees for reporting tuberculosis cases.——The bill abolishing the Quarantine Commission and transferring its duties to Dr. Alvah H. Doty, health officer of the Port of New York, has been signed by the governor.

New York City

Personal.—Prof. Charles Baskerville, director of the chemical laboratory, College of the City of New York, sailed for London, May 15, to attend the Seventh International Congress of Applied Chemistry.——Dr. and Mrs. Frederick S. Dennis returned from Europe May 21.

Hospital Fund Distributed.—The distributing committee of the Hospital Saturday and Sunday Association appropriated $72,000 of the funds received, the largest awards being made to the Montefiore Home and Hospital for Invalids and Mount Sinai Hospital, each of which received $7,200.

Sea Air for Babies.—St. John's Guild has opened its seaside hospital for babies at New Dorp, Staten Island, two weeks earlier than usual, the boats having already begun three daily trips. Under the policy of the guild the sick child secures admission for itself and mother and all children under the age of 6 in the family.

OKLAHOMA

Commencement.—A class of six was graduated from the College of Medicine of Epworth University, Oklahoma City, May 10. Chancellor George H. Bradford and Bishop W. A. Quayle delivered addresses to the class, and Dr. Archa K. West, dean of the school, presented the diplomas.

State Society Meeting.—The seventeenth annual meeting of the Oklahoma State Medical Association was held in Oklahoma City, May 11-13. The following officers were elected: President, Dr. Walter C. Bradford, Shawnee; vice-presidents, Drs. Charles L. Reeder, Tulsa; David A. Myers, Lawton, and John W. Duke, Guthrie; secretary-treasurer, Dr. Claude A. Thompson, Muskogee, and councilors: First District, Dr. J. Asa Walker, Shawnee; Second District, Dr. John W. Duke, Guthrie; Third District, Dr. Charles R. Hume, Anadarko; Fourth District, Dr. Adam B. Fair, Frederick; Fifth District, Dr. Frederick R. Sutton, Bartlesville; Sixth District, Dr. William G. Blake, Tahlequah; Seventh District, Dr. Ira W. Robertson, Dustin; and Eighth District, Dr. Herbert P. Wilson, Wynnewood. Tulsa was selected as the place of meeting for 1910.

PENNSYLVANIA

Inebriate Hospital Bill Vetoed.—The bill providing for the erection of a state hospital for inebriates, which carried with it an appropriation of $100,000, was vetoed by the governor, who is said to have been really in favor of the measure, but was obliged to cut off all new institutions on account of the fact that the legislature had made appropriations of $20,000,000 more than the income of the state.

Vital Statistics.—During March there were reported in the state 13,377 cases of communicable disease, chief among which were measles, 4,507; scarlet fever, 1,881; tuberculosis, 1,375; diphtheria, 1,283; chickenpox, 1,207; pneumonia, 943; whooping cough, 794; typhoid fever, 690, and mumps, 530. During February there were 10,230 deaths reported, of which 1,503 were due to pneumonia, 876 to tuberculosis, 528 to accidents, 516 to diseases of early infancy, 451 to nephritis, 352 to cancer, 198 to influenza, 161 to diphtheria, 136 to typhoid fever, 124 to scarlet fever, 111 to whooping cough, 82 to measles, and 68 to suicide.

Philadelphia

Free Bed for Jefferson Hospital.—In memory of her son, Dr. Charles N. Williams, Mrs. Sarah E. Williams, of Wellsboro, has endowed in perpetuity, a free bed in the Jefferson Hospital at an expense of $5,000.

Personal.—Dr. R. Bruce Burns was stricken with apoplexy, May 19. He is reported to be convalescing in the Pennsylvania Hospital.——Drs. Eli L. Klopp and Dr. Augusta A. Koenig sailed for Europe May 22.

Failed to Register Births.—Five physicians and three midwives, who were arraigned, April 30, charged with failure to report births within ten days, as required, are said to have pleaded guilty and paid the cost of the proceedings.

Ex-Residents Meet.—The first meeting of the ex-residents association of St. Joseph's Hospital was held May 10. At the business meeting the following officers were elected: President, Dr. George M. Marshall; vice-president, Dr. John J. Moylan; secretary and treasurer, Dr. Joseph M. Spellissy, and historian, Dr. Joseph E. Roberts.

TENNESSEE

Endow Memorial Room.—Two families in Memphis and one family in Oxford, Miss., have endowed a memorial room in the new Baptist Memorial Hospital, Memphis, at a cost of $1,000.

Alumni Election.—The Alumni Association of Memphis Hospital Medical College, at its annual election, April 29, elected Dr. Landon A. Yarbrough, Covington, president; Dr. R. E. Hering, Arlington, vice-president; Dr. Buford N. Dunavant, Memphis, secretary, and Dr. D. Max Henning, Memphis, treasurer.

Society Meetings.—At the semi-annual meeting of the Dickson County Medical Association, held in Dickson March 12, Dr. W. W. Walker was elected president; Dr. Joseph C. Flowers, vice-president; Dr. William S. Scott, secretary, and Dr. William J. Sugg, delegate to the state medical association, all of Dickson.——Claiborne County Medical Society was organized at Tazewell February 3, with Dr. Monte B. Carr as president, and Dr. Patterson as secretary.——The Nashville Academy of Medicine met April 6, and elected the following officers: Dr. Duncan Eve, Sr., president; Dr. James M. King, vice-president; Dr. Holland M. Tigert, secretary-treasurer; Drs. Matthew C. McGannon, William H. Witt and Marvin M. Cullom, delegates to the state association, and Drs. Lucius E. Burch, Olin West and David R. Neil, alternates.

TEXAS

Health Board Organized.—The Board of Health of Austin has been organized with Dr. William J. Matthews, president; Dr. Thomas R. Pettway, vice-president; and Dr. Thomas S. Bennett, secretary.

Commencement.—The annual commencement exercises of the medical department of Fort Worth University were held May 4, when a class of 17 was graduated. The faculty address was made by Dr. Bacon Saunders, and the diplomas were awarded by the president.——The annual commencement exercises of the Baylor University, College of Medicine, Dallas, were held April 29, when a class of 16 received diplomas from the hand of President S. P. Brooks. The address of the evening was made by Dr. Garfield M. Hackler.——The sixth annual commencement exercises of the Southwestern University Medical College, Dallas, were held April 29, when a class of 9 was graduated. The degrees were conferred by R. S. Hyer, president of the University, and the doctorate address was delivered by Bishop A. C. Garrett.

Legislative Work.—The legislature has passed a bill providing for the appropriation of $40,000 for the establishment of a leper colony at some point in the state, at least five miles from any town, and making it a misdemeanor punishable by fine to conceal any case of leprosy.——An appropriation of $90,000 has been made for the erection of a new building for the criminal insane at the Southwestern Insane Asylum, San Antonio, and an appropriation of $35,000 for each of the state asylums for the care of the consumptive insane.——The tuberculosis commission bill was killed in the house May 3 by a vote of 59 to 35. The bill provided for the creation of a commission of three physicians experienced in dealing with tuberculosis, to be appointed by the governor, and to be furnished with $5,000 for the gathering of information.

State Society Election.—At the forty-first annual meeting of the State Medical Association of Texas, held in Galveston, May 4-6, the following officers were elected: President, Dr. Witten B. Russ, San Antonio; vice-presidents, Drs. W. N. Wardlaw, Plainview; Charles M. Alexander, Coleman, and Joseph W. Largent, McKinney; councilors: First District, Dr. Felix P. Miller, El Paso; Fourth District, Dr. Stoyell E. Parsons, San Angelo; Eleventh District, Dr. Alfred L. Hathcock, Palestine; Thirteenth District, Dr. John H. Ball, Crystal Falls; and Fourteenth District, Dr. Frank D. Boyd, Fort Worth; trustee, Dr. John S. Lankford, San Antonio (reelected); delegates to the American Medical Association, Drs. Edward H. Cary, Dallas; William M. Brumby, Austin, and Frank Paschal, San Antonio, and alternates, Drs. Ira C. Chase, Fort Worth; William R. Thompson, Fort Worth, and Hatch W. Cummings, Hearne. Dallas was selected as the next meeting place.

VERMONT

Tuberculosis Exhibit.—The State Tuberculosis Commission gave its exhibit in Rutland May 12 and 13. The exhibitions are being given in all the larger towns of the state, and in addition to the exhibit itself, illustrated lectures are delivered.

Personal.—Dr. Bertrand J. Andrews, Burlington, celebrated the twentieth anniversary of his appointment as superintendent of the Mary Fletcher Hospital recently.——Dr. Henry D. Chadwick, Pittsford, has been appointed superintendent of the new state tuberculosis hospital to be established at Westfield, Mass.——Dr. John D. Hanrahan, Rutland, celebrated the fortieth anniversary of his entrance into practice, April 12.——Dr. George C. Berkley, St. Albans, has resigned as surgeon of the First Infantry Vt. N. G.

WASHINGTON

Physician Sentenced.—Dr. Fred Peacock, Cathlamet, charged with manslaughter by causing the death of Madeline Longtaine as the result of an alleged illegal operation, is said to have been sentenced, April 2, to serve an indeterminate sentence from one to twenty years in the state penitentiary. Motion for a new trial was denied. In February last the defendant was shot and dangerously wounded by the mother of the deceased girl.

Medical Inspection of Schools.—Dr. H. Eugene Allen, chief medical inspector of schools, Seattle, in a report of his inspection work for the first half of the fiscal year, shows that the medical inspectors made 885 school visits and examined 37,948 pupils, recommended treatment in 5,483 cases and excluded conditionally from school 1,211 pupils on account of

scabies, pediculosis and ringworm. There were also 392 cases of contagious disease unconditionally excluded from the schools.

GENERAL NEWS AND COMMENT

Consumptive Camp in Hawaii.—Funds have been contributed for a camp soon to be erected at Honolulu for the open-air treatment of tuberculosis.

Examination in Public Health Service.—A board of medical officers of the Public Health and Marine Hospital Service will convene in Washington on June 14, at 3 B St., S. E., at 10 a. m., to examine candidates for admission to the grade of assistant surgeon in the service. Candidates must be between 22 and 30 years of age, graduates of reputable medical colleges, and must furnish satisfactory testimonials. The examination will be physical, oral, written and clinical. Assistant surgeons receive a salary of $1,600, and after four years' service are entitled to examination for promotion to the grade of passed assistant surgeon, with a salary of $2,000 per year. Promotion to the grade of surgeon is made according to seniority, and after examination, and this grade pays a salary of $2,500 a year. Officers are entitled to quarters for themselves and families, and all grades above that of assistant surgeon receive longevity pay. The tenure of office is permanent. For further information application should be made to the Surgeon General, Public Health and Marine Hospital Service, Washington, D. C.

The Carroll Fund.—The following subscriptions have been received since the last report:

Medical Officers of the Army	$ 40.00
Mr. John D. Rockefeller, New York	500.00
Dr. E. H. Sichler, Detroit	5.00
Dr. W. L. Adams, Palo Alto, Cal	5.00
Las Vegas Medical Society, East Las Vegas, N. M.	20.00
Dr. Joseph Brettauer, New York	25.00
Dr. K. C. Melhorn, U. S. Navy, U. S. S. *Dixie*, Navy Yard, Philadelphia	5.00
W. G., San Francisco	5.00
Chicago Pathological Society	50.00
Nebraska State Medical Society	100.00
Dr. M. Klonk, Lodi, Cal	2.00
Dr. Willis W. Waite, Syracuse, N. Y.	2.00
Cambridge Medical Improvement Society, Cambridge, Mass.	25.00
Crawford County (Ill.) Medical Society	15.00
Dr. William Pepper, Philadelphia	5.00
Dr. Mark W. Richardson, Boston	5.00
	$ 814.00
Previously acknowledged	3,825.65
Total	$4,639.65

Two thousand five hundred dollars is still necessary to raise this mortgage. There is information that at least $500 of this amount has been subscribed and will be forwarded before the session of the American Medical Association. It would be gratifying to all concerned if it could be announced at the session that the entire amount had been raised. All subscriptions should be sent to Major M. W. Ireland, Medical Corps, U. S. Army, War Department, Washington, D. C.

Societies.—At the annual meeting of the Connecticut River Valley Medical Association, held in Bellows Falls, Vt., May 6, Dr. John D. Proctor, Keene, N. H., was elected president; Dr. Ansel S. Miller, Brattleboro, Vt., vice-president; Dr. James S. Hill, Bellows Falls, secretary, and Dr. Edward R. Campbell, Bellows Falls, treasurer.——The Interstate Medical Club has been organized at Breckenridge, Minn., with the following officers: President, Dr. Timothy O'Brien, Wahpeton, N. D.; vice-president, Dr. Nathan F. Doleman, Tintah, Minn.; secretary, Dr. Clarence P. Rice, Breckenridge, Minn.; treasurer, Dr. Louis W. Armstrong, Breckenridge, Minn., and censors, Drs. Tobias Birnberg, Campbell, Minn.; A. Victor Young, Hankinson, N. D.; and Robert H. Devine, Wahpeton, N. D.——The second annual meeting of the Tri-State Railway Surgeons' Association was held in New Orleans, May 3, when the following officers were elected: President, Dr. James J. Haralson, Forest, Miss.; vice-presidents, Drs. Henry F. Wilkins, Rayville, La., and J. Mosley Alford, Ellisville, Miss.; secretary, Dr. Joseph D. Martin, New Orleans, and treasurer, Dr. Robert W. Thompson, Lumberton, Miss.——At the fifth annual meeting of the National Association for the Study and Prevention of Tuberculosis, held in Washington, May 13-15, more than 250 delegates from all sections of the country were present. The executive secretary reported that the association had gained 600 members during the year, and that 34 out of 40 state legislatures had considered legislation on tuberculosis. At the meeting of the advisory council Dr. Victor C. Vaughan, Ann Arbor, Mich., delivered an address on "Tuberculosis Legislation in Municipal and State Governments." Dr. Henry M. Bracken, Minneapolis, Minn., was elected president of the section. Great interest attached to the address of Dr. Homer Folks, New York, on recent tuberculosis campaigns and their results. In his opinion, the control of tuberculosis is a problem for local authorities, and he believes the most effective work that can be done by local organizations is to follow the example of the national association in forming local organizations and committees to take the responsibility of securing county and municipal control of the disease. Drs. William Osler, Oxford, England, and William M. Welch, Philadelphia, spoke of the results of the work on tuberculosis, and Speaker Cannon and Ambassador Brice gave their views regarding the outlook. Nathan Strauss, in his address, stated that he had discovered that one out of every eighteen samples of milk sold in Washington was tuberculous, and that one out of every ten dairies in the city supplied tuberculous milk despite the recent vigorous campaigns and that efforts had thus far failed to check the ravages of the disease.

CANADA

Memorial Chair.—At the recent convocation of McGill University, it was announced that $60,000 had been guaranteed by the committee to establish a chair of chemistry in memory of the late Professor Harrington.

Hospital Notes.—Montreal is about to have a hospital to be devoted entirely to the care of advanced cases of tuberculosis.——Grace and Western hospitals, Toronto, are to be amalgamated in a short time.——A new Western Hospital is to be erected soon, to cost $150,000.

Graduation Exercises.—At the annual convocation of the Western University Medical Department, London, a class of 23 was graduated. Dr. Hadley Williams delivered the faculty address, and Rev. E. B. Lancely was the orator of the occasion.——At the twenty-sixth annual graduation exercises of Manitoba Medical College, Winnipeg, May 13, Dr. Robert S. Thorton, member of the Provincial Parliament from Deloraine, delivered the principal address, and a class of 36 was graduated.

Tuberculosis in Prince Edward Island.—It is reported that out of the 950 deaths which occurred in Prince Edward Island during the year ended May 31, 1908, 142 were due to tuberculosis. The society for the prevention of tuberculosis in that island has recently been rejuvenated and medical men have been appointed to the chief offices therein. Lectures are being given and a dispensary has been established in Charlottetown. An appropriation of $600 has been made by the provincial parliament for the work against tuberculosis.

Personal.—Dr. Dyer, Vancouver, B. C., has been appointed assistant to the medical health officer.——Dr. Albert K. Pyne, Toronto, has been appointed chairman of the local milk commission.——Drs. Geoffrey Boyd and Charles Trow, Toronto, have gone to Europe.——Dr. George A. Armstrong, Montreal, has returned from Paris.——Dr. Robichaud, Montreal, has resigned as superintendent of the Hôtel Dieu, Montreal, and has been succeeded by Dr. G. H. Baril.——Dr. H. H. McIntosh, Vancouver, B. C., has resigned as superintendent of the Vancouver General Hospital, and has been succeeded by Dr. Whitelaw.——Dr. James Sampson, Windsor, Ont., has been appointed chief lecturer on "Old Age Pensions" by the Dominion government.——Dr. William I. Senkler, Vancouver, is reported to be critically ill in St. Vincent's Hospital, Portland, Ore.——Dr. James Christie, on May 1, celebrated the fiftieth anniversary of his entry into practice in St. John, N. B.——Dr. J. B. Leathes, F.R.S.C., London, has been appointed professor of chemical pathology in the faculty of medicine of the University of Toronto.

FOREIGN

Psychologic Congress.—The sixth International Congress of Psychology will convene at Geneva, Switzerland, August 3-7, under the presidency of Prof. Thomas Flournoy. The general topics for discussion are "Feelings," "Subconsciousness," "Measure of Attention," and "Religious Psychology." The special topics are the "Psychopedagogical Classification of Backward Pupils," "Pedagogical Psychology," "Orientation at a Distance," and "Perception of Position and Movement of the Body and Limbs." Under standardization will be included terminology, standard colors, enumeration of errors in testimony experiments, notation of age of children and mathematical determination of numerical results of experiments.

Recent Deaths in the Profession Abroad.—In addition to the deaths of members of the profession mentioned by our foreign correspondents, we record those of E. Galvagni, professor of clinical medicine at Modena since 1880, a leader in the profession in Italy, and author of important works on peritonitis,

polyserositis and other phases of internal medicine; E. Kufferath, professor of obstetrics at Brussels; J. R. Costa, professor of medical physics at Buenos Aires; E. R. Haug, professor of otology at Munich; A. Almarez, professor of chemistry at Mexico; P. de A. Magalhaes, professor of surgical pathology at Rio de Janeiro and author of numerous works on liver and cardiovascular affections, neuritis and beriberi.

British Medical Association.—The seventy-seventh annual meeting of the British Medical Association will be held in Belfast, Ireland, July 23 to 31, 1909. The scientific portion of the meeting will begin with the president's address, on Tuesday, July 27, and the sections will meet on the three following days. Saturday, the 31st, will, as usual, be reserved for excursions. The address in medicine will be delivered by Dr. R. W. Philip, physician to the Royal Infirmary and Royal Victoria Consumption Hospital, Edinburgh; that in surgery by Mr. A. E. J. Barker, professor of surgery, University College, London; and that in obstetrics, by Sir John W. Byers, professor in midwifery and diseases of women, Queen's College, Belfast. The "Popular Lecture," which of late years has become a feature and consists of a lecture open to the public at large, on some subject of general interest and welfare, will be delivered by Dr. A. J. Macdonald. In the Section on Hematology and Vaccine Therapy, presided over by Sir Almroth Wright, there will be papers on "Typhoid-Carriers" (Dr. Houston); "The Bacteriology of Cystitis" (Captain Douglas); and "The Bacteriology and Vaccine Treatment of Acne" (Dr. Fleming). A discussion on "The Early Diagnosis of Tuberculosis" will be opened on July 29 by Professor Calmette of Lille. In the Section on Hygiene and Public Health, compulsory notification of all forms of tuberculosis, latent infections of the diphtheria bacillus, and sewage discharge into tidal waters will be among the subjects. The discussion on latent infections of the diphtheria bacillus will be jointly with the Laryngologic Section. In the Section on Medicine, metabolism, the medical aspects of athleticism, and adolescent albuminuria or mucous colitis will be discussed. In the Navy, Army and Ambulance Section, the following subjects are proposed:

1, Effect on Health of Service in Submarine Boats; 2, Conditions of Life on Boys' Training Establishments on Shore; 3, Medical Arrangements for War in Ship[illegible] 4, A Detailed Scheme for an Unexpec[illegible] Material Available on Board Ship; 5, [illegible] Medical Officer; 6, Probable Effects in [illegible] treatment of Syphilis by Means of Organic Arsenical Compounds; 7, The Importance of the Permanent Attachment of Ample Transport under the Command of the Medical Officer to each Field Medical Unit; 8, The Infective Pneumonias, their Incidence, Causes, Prevention, and Treatment during [illegible] ing Ambulance Organization of the Hom[illegible] th Suggestions for its Amplification and [illegible] cts of Recent Research on the Work of [illegible] 11, Diagnosis and Treatment of Pulmonary Tuberculosis in the Service; 12, Collection and Disposal of Wounded in War.

"The Graver Forms of Puerperal Sepsis and Endometritis" will occupy the attention of the Section on Obstetrics and Gynecology, and "Eye Injuries in Relation to the Workman's Compensation Act," "Vascular Diseases of the Retina," and "Diseases of the Lymphoid Tissues of the Conjunctiva" (Mr. Treacher Collins, F.R.C.S.) that of the Section on Ophthalmology. The Section on Pharmacology and Therapeutics will discuss spinal anesthesia and the treatment of edema. In the Section on Psychological Medicine, the subject of "Somatic Delusions and Local Lesions" will be opened by Dr. C. A. Mercier. The Section on Tropical Medicine will discuss, on July 28, "Persistence of the Tropical Diseases of Man Due to Protozoa" (C. W. Daniels, M.D.); July 29, "Treatment of Chronic Recurrent Dysentery with Special Reference to the Possibilities of Surgical Treatment" (Mr. J. Cantlie, F.R.C.S); July 30, "Feeding and Treatment of Children in the Tropics" (Dr. W. Carnegie Brown). The annual dinner will take place on July 29, and the reception on July 30. The recreations, which are always an important feature with the British Medical Association, will include a golf competition, a cricket match, and in all probability, the launch of one of the great steamships for which the Belfast shipyards are famous.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, May 15, 1909.

Bill to Regulate the Use of Anesthetics

As shown in previous letters, the large and increasing number of deaths which occur under anesthesia has aroused considerable public attention and a bill is now under consideration in parliament to regulate their administration. It is to be a penal offense for any person not medically qualified to administer a drug for the purpose of producing a state of unconsciousness during any medical or surgical operation or during childbirth. For the first offense the maximum penalty is $50 and for the second $100. Two exemptions are allowed. An anesthetic may be administered under the immediate direction and supervision of a legally qualified practitioner or in the event of the person administering it having reasonable grounds for believing that the delay caused by calling in a physician would endanger life. The bill is not to apply to those already registered under the Dentists Acts. It will be a severe blow to the numerous unqualified dentists who practice, though they are largely the product of circumstances. Registration of dentists was instituted in 1878. Before this date any one could practice dentistry. The supply of dentists with a qualification of a medical college was then small and all persons who were then engaged in the practice of dentistry were admitted to the register. After that period only qualified dentists were admitted to the register, but the supply has never equalled the demand for dentists. Consequently there is a large body of unqualified practitioners throughout the country. Until recently they were not in any way interfered with as long as they did not adopt the title "dentist," which is reserved for registered practitioners. This did not place them at much disadvantage, as they adopted such equivalent designations as "tooth specialist," "dental institution," etc. But recently the law has been set in motion against them and the courts have decided that the use of such designations is illegal, as they imply that the person using them is a dentist. Even the exhibition of sets of teeth in the window or the notice "teeth skilfully extracted" are now penal. Under the bill these practitioners will not only be prohibited from administering an anesthetic, but no physician may administer one for them.

Discomfiture of the Antivaccinationists

Mr. Lupton, M. P., the leader of the antivaccinationists in the House of Commons and a truculent advocate of this fallacy, asked a question in the House which received an unexpected answer. He inquired whether during the late outbreak of smallpox in Bristol the many unvaccinated children in the city showed any special liability to the disease. The president of the local government board, Mr. Burns, replied that any comparison between vaccinated and unvaccinated children should be made in respect to those children who were exposed to infection. At Bristol the persons who suffered from smallpox or were in contact with them were so carefully supervised that few unvaccinated children were so exposed. Of the children under the age of 14 so exposed 9 were attacked by the disease. Two of these had been vaccinated and in them the attacks were abortive. The remaining 7 children were unvaccinated, except that 2 were vaccinated during the incubation period of the disease. Of the 7 unvaccinated children 3 died, all of whom suffered from confluent smallpox.

Malaria in British Colonies

Major Ross, the discoverer of the malarial parasite, delivered a lecture on "The Campaign Against Malaria" before a distinguished audience, including Lord Rayleigh, Sir William Crookes, Sir James Dewar, Professor Arrhenius, and others at the Royal Institution. He pointed out that in Italy by distribution of quinin and mechanical protection against mosquito bites the number of deaths from malaria had been reduced from 21,033 in 1887 to 4,160 in 1907. At Ismalia, as the result of the methods which he had advised for the reduction of mosquitoes the disease had ceased to be endemic since 1904. Work at Klang and Port Sweetenham in the Malay States had been equally successful. Excellent campaigns against the disease had also been conducted at Durban, Hong Kong, Khartum, Candia, and Port Said. But in India he could find no evidence of a generalized effort against the disease. In 1907 statements were published of what had been done in 21 colonies. Only in 7—Southern Rhodesia, Papua, Mauritius, British Central Africa, Gambia, Ceylon, Southern Nigeria—was there evidence of any real interest in the matter. The reports from the Bahamas, Barbadoes, Jamaica and St. Kitts-Nevis snowed nothing but neglect of public duty. The immediate responsibility for the neglect lay with the heads of the sanitary services of the colonies. Though many capable individuals were to be found in those services colonial governments, as a rule, were too careless in selecting the men to whom they entrusted the public health.

London School of Tropical Medicine

The London School of Tropical Medicine has started an advanced course in medical zoology which includes protozoology.

arthropodology and helminthology. Arrangements have been made so that the course in all three subjects can be taken during three months or the whole time may be spent on one subject. Only students who have attended the ordinary course or those who can satisfy the teachers that they possess sufficient rudimentary knowledge are eligible. Special arrangements may be made for teachers who desire to devote themselves to any particular branch or to undertake research work.

State Registration of Nurses

An influential deputation which was recently received by the prime minister urged that facilities should be given by the government for the introduction of a bill establishing a statutory council for the examination of trained nurses. Sir Victor Horsley spoke on behalf of the British Medical Association and said that the medical profession desired to see the nursing profession properly equipped. The premier pointed out, however, that there was considerable opposition to the proposal. He had the views of persons who were entitled to the highest consideration who were altogether opposed to the proposed legislation. These included many of the chairmen of the London and provincial hospitals. He had also received a list of names of 100 members of the medical profession in London, including some of the most eminent, particularly in the department of obstetrics and surgery and a list of 120 names in the provinces who were entirely opposed to the proposal. So also were 49 matrons of the London hospitals and 109 matrons of the provincial hospitals. If such registration was enacted it would not in the least prevent persons who had not satisfied the examiners from pursuing the profession of nursing. Those outside the pale could carry on their profession as before. Under the circumstances he did not think the deputation could expect him to do more than promise to give the most careful consideration to their arguments.

PARIS LETTER

(From Our Regular Correspondent)

Paris, April 29, 1909.

Commercial Medical Societies

The *Association Générale de prevoyance et de secours mutuels des Médecins de France* celebrated in April its semi centennial, as described in my letter on page 1592. At the general assembly the following day a question of professional ethics was raised which has occupied professional attention for a long time, but has not hitherto dared to show itself openly.

There exist in France certain medical societies claiming to be provident societies, which, in reality, are only commercial societies, and tend to deprive physicians who have subscribed to their statutes of liberty of conscience. The chief of these societies is the *Prévoyance médicale*, which is a purely commercial association, consisting of physicians and some pharmacists who possess either stock in mineral waters, or mineral springs themselves, and who undertake to recommend them in preference to other similar waters. Moreover, the physicians who belong to these societies are induced to prescribe soaps, medicated baths, meat preparations, etc., and even pharmaceutic products, such as the "grains de Vals." Officially, the society professes to leave its members entire liberty, not requiring them to prescribe its products save when the proper indication presents itself. But, as a matter of fact, those who prescribe them little are not long in being called to order, and the representative of the society does not hesitate to say to them "when an indication for prescribing our product fails to present itself you must know how to make one." In return the society assures to its members the following advantages:

Every member holds one or more shares in the society, which distributes an annual dividend, naturally varying according to the success of the sales of the society's products. Moreover, the society promises to all its adherents, at 60 years of age, a retiring pension, which at present amounts to 1,000 francs; their widows are also pensioned, and their orphans supported till they become of age. Quite recently the Provident Medical Society has organized a fund for indemnity in cases of sickness; for this the members have no contributions to pay, but must prescribe alimentary products, farinaceous foods, and other dietetic products. It is hardly ten years since the opinion of the entire medical body was almost unanimous for rejecting the principle of such an association. There were only certain physicians, very few in number, who were affiliated to this society, which at that time called itself the Society of Mineral Waters; and in 1900, when the question was put to the Congress of Deontology and Professional Medicine, Dr. Poirson, president of the Union of Medical Syndicates, declared—without calling forth any protest—that the Provident Medical Society was one of those commercial affairs from which the physician ought to keep himself aloof. Unfortunately, since then too large a number of physicians have changed opinions on this question, either because of the increasing difficulty encountered in living by the normal practice of their profession, or because they have not sufficiently reflected on the gravity of the consequences for the medical body that the spread of such concerns must have—consequences grave, not only from a material point of view, for in proportion as these practices should become known to the public, the latter will less and less seek professional advice, which they know not to be disinterested; but still more, from a moral viewpoint, because such practices will end in the physician being regarded simply as an ordinary tradesman.

The local society of the department of Landes is disturbed at this state of things, which tends to discredit the entire medical body "by making of the physician a peddler in specialties." It consequently appealed to the board of the *Association Générale* mentioned above, presenting a resolution calling on the association to point out to all its members and to all the physicians of France, the moral danger that the medical body runs in entering on the path of so-called provident medical, but really commercial, societies. In conformity with the statutes, the board of officers has had to express its opinion on this resolution. It has done so very courageously through its general secretary, Dr. Lepage, who in his report has asked that the resolution of the Society of Landes be taken into consideration, that is to say, be referred for examination to the local societies, to be then discussed at the general assembly in 1910. A group of physicians, however, demanded: (1) That the resolution of the Society of Landes be erased from the orders of the day, and consequently that it should not be discussed; (2) that in the report of the general secretary everything relative to this question should be suppressed, and that this part should be neither read in session nor printed in the bulletin of the association. This maneuver of the partisans of the *Prévoyance médicale* society failed completely, and indeed resulted in the immediate opening of a discussion on the question. On the observation of one delegate, that everyone under the circumstances ought openly to take his responsibility, it was decided that the vote should be public and by name, each delegate answering to his name with *Yes* or *No*. This is the first time that a general assembly of the association has voted in this fashion. The vote resulted as follows: For taking under consideration the resolution of the Society of Landes, 113; against, 17. The resolution is therefore referred for the consideration of local societies, and without prejudging the view that these societies will take, we may congratulate ourselves that the general assembly should have taken a decision so conformable to the honor and dignity of the medical profession.

On the other hand, it is interesting to note that the council of the association of pharmacists complains equally of the existence of these so-called provident medical societies based on the exploitation of mineral waters and various other products. Recently, the council of the Union of Medical Syndicates has been overwhelmed with various propositions on this subject. Unfortunately, under the pretext of respecting the independence of the physician, the council has passed an order of the day which opens wide the door to all kinds of abuses and to commercial alliances between certain unscrupulous physicians and pharmacists. The administrative council of the Union of Medical Syndicates of France, holding that the physician ought to preserve absolute liberty of prescribing in regard to the patient, and to be dependent on nothing except his own conscience, denies to all professional bodies, medical or other, the right to dictate to him his conduct in this matter.

BERLIN LETTER

(From Our Regular Correspondent)

Berlin, May 6, 1909.

The New Imperial Insurance Bill

This bill, which I have mentioned in a previous letter, is creating a considerable interest among the classes affected. The pharmacists seem to be well satisfied, but all the other trades or professions make more or less criticism. On the part of the medical profession one can take many exceptions to the bill, and in most publications the proposed law is designated as unacceptable to the medical men. The business committee of the German Medical Association (Deutschen Aerzte Vereinsbundes) proposes some amendments which will be put before medical councils and societies for discussion.

The principal debate on the part of physicians will take place at the meeting of the German Medical Association (Aerztetag) which meets at Lübeck in June.

Personals

Prof. George Klemperer, for many years an assistant of v. Leyden, has been chosen director of the department of the city hospital, Moabit, as successor of the late v. Renvers. This choice not only corresponds to the expectations of the initiated, but is fully justified by the scientific qualities of Klemperer. Klemperer has been for some years in charge of the second medical division of the same hospital, so that his promotion to a higher position is quite in order.

Professor Stern of Breslau, the superintendent of the university policlinic in medicine at that place, has accepted the call as director of the medical clinic at Greifswald in place of Minkowski. Stern has secured his reputation by the preparation of a very widely used text-book on the connection between trauma and internal diseases.

Professor Heine of Königsberg has accepted the call as director of the clinic and policlinic for ear diseases at Munich as successor of the lately deceased Professors Bezold and Haug. In this case the disputed question which I have lately referred to, regarding the combination of instruction in laryngology and otology, has been settled for Munich by retaining the previous status of separate instructors for the two specialties.

On May 3 Professor Guttstadt died at Berlin, aged 69. Guttstadt was a member of the Prussian National Statistical Office and had rendered very good service in the field of medical statistics and public hygiene by a series of excellent investigations.

April 20, Professor Laqueur, formerly director of the Strassburg eye clinic, died at the age of 69. He was at one time an assistant of v. Gräfe and later of Professor Liebreich of Paris, but was professor of ophthalmology at Strassburg, 1872 to 1907.

The interregnum at the medical clinic at Bonn, which has lasted for nearly a year, is finally terminated. The direction of the policlinic, which was rendered vacant when Professor Leo was appointed as successor of Professor Binz, has been assumed by Professor Krause, the director of the medical policlinic of Jena. The successor of v. Krause is Professor Lommel.

Private Hospital for Middle Class Patients

The question, still unsettled for Berlin, whether beds shall be provided in city hospitals for middle class patients, has received a temporary solution in our neighboring city, Charlottenburg, by the establishment of a clinic with 50 beds for middle class patients in the Central Charities building (Zentral-Wohlfahrts-Gebäude), erected and dedicated a few days ago by the Women's Patriotic Association of Charlottenburg (Vaterländischen Frauenverein Charlottenburg). The daily price for a bed is 6 to 10 marks ($1.50 to $2.50). The building is further notable as furnishing a central bureau for the charitable work of the city of Charlottenburg. The house contains rooms for the care of pulmonary patients, a diet kitchen with special rooms for the feeding of school children, a room for the care of infants, the central bureau of the workingmen's recreation parks, a place for the care of alcoholic patients and an intelligence office for summer outings for people of moderate means and some other society bureaus. There is no doubt that such a centralization of charitable work in many respects will be very advantageous. The business between the individual charitable societies is facilitated and accelerated, time and labor are spared, and an equable distribution of assistance is assured.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, May 8, 1909.

Health Statistics for Austria

A government report for 1907 contains some very instructive figures. According to this there were altogether 26,000,000 inhabitants in Austria (without Hungary); 731 hospitals, with 52,870 beds were available for patients; compared with 1906, this means an increase of 17 hospitals and 1,350 beds. The number of in-patients occupying these hospitals was 615,125, an increase of 22,600 against 1906. The proportion between population and hospital beds varied very much. Thus in Vienna there was one bed for each 269 persons, in Triest one for each 112 inhabitants, in Galicia one for 1,208 only. The most important affections treated in the hospitals were: injuries, 96,616; ophthalmic cases, 37,125; venereal diseases, including syphilis, 39,740; tuberculosis, 31,845; bronchial catarrhs, 27,046; diseases of female sexual organs, 25,223; rheumatic affections, 22,868; diseases of stomach, not malignant, 19,142; heart disease, 13,948; cases of malignant tumors, 12,860; diseases of the bones, 12,981; cases of pneumonia, 11,512. There were 69 cases of smallpox with three deaths in this year, and one fatal case of Asiatic cholera.

Of course these figures comprise only the cases admitted into hospitals. In order to indicate the actual numbers of cases of disease, it must be stated that only 11 7/9 per cent. of all tuberculous persons who died that year died in hospitals. There were 96,000 deaths from this cause alone in the empire.

There were 32 public and 9 private lunatic asylums with 29,860 patients: of these 3,646 suffered from acquired idiocy, 2,712 from paranoia, 2,286 from general paralysis of the insane, 1,748 from alcoholic mania, 1,524 from epileptic insanity, 1,180 from congenital insanity, 500 from congenital idiocy. Of each 100 insane persons only 51 per cent. were in asylums, 70 per cent. in infirmaries, and 39 per cent. in private care. In 18 maternities with 1,917 beds, there were 29,681 mothers with 20,969 children; furthermore, there were 8 foundling asylums with 731 cots and 556 beds for wet-nurses. In these institutions 41,098 children were born. In 22 institutions for deaf-mutes, 1,938 persons were cared for while 27,500 were cared for privately. In 15 institutions for the blind 1,159 inmates were counted against 12,890 cared for privately. This year 767,950 persons were vaccinated for the first time. There were 263 *Curorte* or health resorts with nearly 500,000 health-seekers. Carlsbad with 60,000 visitors heads the list. There were 70 *Curorte* with 20,000 to 30,000 visitors paying the health tax (*Curtaxe*) and 62 with 10,000 to 20,000 visitors. The remainder are smaller health resorts.

It is interesting to note that 65 per cent. of all medical men held public appointments, of whom more than 30 per cent. had to rely on their income only, as they had to give all their time to their appointments while the other 70 per cent. of this class of physicians were allowed to follow private practice as well. The number of appointments is increasing constantly; so that in a few years to come every physician in this country will hold some position paid for by the community. This will be the case especially when the new bill for *Socialversicherung* (compulsory insurance of wage-earners) becomes law. Out of all practitioners 95 per cent. are doctors of medicine; 5 per cent. are masters of surgery or masters of obstetrics only, and this latter degree is no longer granted; all graduates must go in for the M.D. diploma. The number of practitioners has lately been increasing even more slowly than the population, but still the proportion is one doctor for each 2,200 of the population. As there were 12,260 practitioners in the country, naturally the towns are better off, having one doctor for each 900 to 1,200 inhabitants, while the country has a proportion of 1 to 2,600 and 1 to 5,600. As regards the income trustworthy information is of course hardly obtainable, but the values of appointments are known. The highest salary is $2,600 a year with certain emoluments, amounting to about 30 per cent., the lowest $300. Only 6 per cent. of the salaries reach the upper limit; 22 per cent. are at the bottom; the majority have $600 to $1,500 a year with the above-mentioned income.

Pharmacology

AGAIN LLOYD'S "CONSUMPTION CURE"

The "Discoverer" Is Awarded a Diploma of Merit by a Learned (?) Society

On two occasions[1] we have given space to a "consumption cure" fake known at various stages of its career as "Lloyd's Specific," "Sol. Anti-Phthisis (Lloyd)," "Aicsol," and finally "Re-Stor-All," the promoter being one Judd Q. Lloyd of St. Louis. Under the first three names it was advertised as an "ethical" remedy; the last name was given it when a company was organized by its promoter to place it on the market as a "patent medicine." This, at least, was the avowed intention. We find, however, in the daily papers that the nostrum is advertised not under its "patent medicine" name, "Re-Stor-All," but under its "ethical" name, "Aicsol." One adver-

1. THE JOURNAL, Nov. 21, 1908 and Dec. 5, 1908; reprinted in pamphlet form.

tisement which starts out with what is alleged to be a testimonial from a physician, contains in addition the following statement:

"On Dec. 15, 1908, the London Society of Science, Letters and Art, of London, England, which was established in 1881 for the purpose of determining the highest scientific and literary achievements of each year, awarded a diploma of merit to Judd Q. Lloyd in recognition of his valuable services to mankind in discovering 'Alcsol,' the only successful treatment for consumption, and was elected an honorary member of that well-known society. Only one such diploma is issued each year in any country."

It seemed strange that a "well-known society" should award a "diploma of merit" to Judd Q. Lloyd for having "discovered" a fake consumption cure and especially that this "society" should rank the "discovery" as the "highest scientific and literary achievement" in the United States for that year. We tried to find out, therefore, something about the society, but were unable to get any trace of it in the various lists of scientific organizations in London. To obtain light on the subject, the editor of London *Truth*, who has shown up so many fake "societies," was written to. He replied as follows:

"The Society of Science, Letters and Art, of London, is a swindle to which at one time we devoted a great deal of attention, and it figured for a time in the *Truth* 'Cautionary List,' but it has lapsed into obscurity in recent years, and we have not referred to it for some time. The concern was started by a man named Albert Sturman who at one time kept a private school for boys in London and also acted as an agent for the sale of various bogus degrees produced on your side of the Atlantic. He then started a degree factory of his own under the above title. He took a house in Kensington and got together a serio-comic literary society, the members of which were entitled to attend *conversaziones*, concerts, etc., in his front parlor, and to dub themselves 'F.S.Sc. (Lond.)' if they paid the fellows' subscription. He also sold them hoods and gowns, specially designed for the benefit of church organists, and generally practiced all the tricks of the trade. He also did very good business by instituting a system of examining small private schools in the provinces and giving the pupils certificates. As he styled his examinations the "Kensington Locals"—which suggested that they were in some way connected with the Government Science and Art Department at South Kensington—country schoolmasters and schoolmistresses patronized these examinations extensively; and I need not tell you that Sturman gave them good value for their money by always passing a fair proportion of pupils.

"In an evil moment for himself, Sturman, who was a stupid and illiterate man, came here to see us, and we published the interview, which made very funny reading. After this the concern went down hill and Sturman himself died six or seven years ago. His wife, however, who was really the active partner in the business, carried it on afterward with some success, but, as I have said, it has dropped out of sight recently, though one occasionally comes across people who display the 'F.S.Sc. (Lond.).'"

Nostrums Containing Habit-Forming Drugs

We recently referred to the large amount of information of interest to physicians which appears in the "Report of the President's Homes Commission," and we quoted from the report a list of "patent medicines" which contained practically no medicinal agents except alcohol. In another part of the same report, Dr. Lyman F. Kebler, chief of division of drugs of U. S. Department of Agriculture, says: "There are on the market many medicinal preparations which contain as ingredients habit-forming drugs. Such drugs are: Alcohol; opium and its derivatives, notably morphin, codein and heroin; cocain; chloral; cannabis indica; acetanilid; etc." Some of these preparations containing habit-forming drugs other than alcohol are given in the "President's Homes Commission" report and are here arranged alphabetically under the habit-forming drug which they contain:

CANNABIS INDICA

One Day Cough Cure (also morphin)
Piso's Cure

CHLORAL

Captol
D. D. D. Remedy

COCAIN

Agnew's Powder
Anglo-American Catarrh Powder
Coco-Bola
Tucker's Asthma Cure

OPIUM AND ITS DERIVATIVES

Boschee's German Syrup (morphin)
Brou's Injection (morphin)
Carney Common Sense Cure (morphin)
Children's Comfort (morphin)
Colwell's Egyptian Oil (opium)
Crossman's Specific Mixture (opium)
Dr. Drake's German Croup Remedy (opium)
Dr. Fahrney's Teething Syrup (morphin)
Dr. James' Soothing Syrup (heroin)
Dr. Seth Arnold's Cough Killer (morphin)
Dr. Moffett's Teethina; Teething Powders (opium)
Fruit-Lax (morphin)
Godfrey's Cordial (opium)
Gowan's Pneumonia Cure (opium)
Habitina (morphin)
Harrison's Opium Elixir (opium)
Hooper's Anodyne, The Infant's Friend (morphin)
Jayne's Expectorant (opium)
Maguire's Compound Extract Benne (morphin)
Mexican Oil (opium)
Mrs. Winslow's Soothing Syrup (morphin)
One Day Cough Cure (morphin, also cannabis indica)
Petit's Eye Salve (morphin)
Pierce's Smart Weed (opium)
Rexal Cholera Cure (opium)
Shiloh's Cure (heroin)
Taylor's Sweet Gum and Mullein Compound (morphin)
Tousley's Sneezeless Snuff (morphin)
Tubercine (opium)
Victor Lung Syrup (opium)
Watkin's Anodyne (heroin)
Wright's Instant Relief (opium)

Association News

THE ATLANTIC CITY SESSION

Additional Announcements—Alumni Reunions—Meeting Places—Other Information

RAILROAD RATES

The Committee on Transportation and Place of Session announces the following rates to the Atlantic City Session. In the New England, Trunk Line, Central and Western passenger associations territories, a rate of one and one-half fare, based on fares in effect April 1, 1909. In the trans-Missouri territory, which includes the Dakotas, Nebraska, Kansas, and the eastern half of Colorado, double the one way fares to Missouri River stations, added to rate of fare and one-half for the round trip tendered therefrom (not to exceed otherwise summer tourists' selling fare to the eastern gateways of this association where same are in effect, added to fares tendered by the Central Passenger Association). From the trans-continental territory, which includes the states west of Colorado, special rates have been made up to the trans-Missouri territory above mentioned. A special rate of $26.00 has been made for the round trip from Chicago to Atlantic City. This is less than the rate of the fare and one-half, and all those who pass through Chicago or St. Louis may therefore avail themselves of this rate from Chicago or St. Louis. A return limit of 30 days is placed on the $26.00 rate from Chicago, and stopovers may be made at Baltimore, Washington and Philadelphia providing the ticket agent is so informed when tickets are purchased. A special rate of $28.20 has been made from Chicago to New York and return for those who wish to go to New York City. Those who wish to make this trip may stop over at Philadelphia by depositing their tickets at Philadelphia and then may go on to Atlantic City to attend the session, taking up the tickets on return to Philadelphia and continuing the trip to New York. The rates here given are for the first-class standard roads and are good on all trains except the 20th Century Limited and the Pennsylvania Special. The rate from Chicago by the differential roads is $25.70 in place of $26.00 by the standard, and to New York is $25.50 instead of $28.20, but the purchaser should remember that he is obliged to go and return by the same route. Up to the present time we have been unable to secure any special rates from the Southeastern Passenger Association. In all cases, before purchasing tickets, consult the local ticket agent and get all particulars in regard to the special rates from that particular point.

M. L. HARRIS, Chairman.

OTHER ALUMNI REUNIONS

A partial list of the entertainments to be given to the visitors at the Sixtieth Annual Session of the American Medical Association in Atlantic City, June 8-11, was published in THE JOURNAL May 15, page 1594. The following additional alumni reunions are announced for Tuesday, June 8:

7:30 p m—Harvard University alumni meeting and dinner at Hotel Windsor
9 p m—Dartmouth Medical College alumni reunion at Hotel Chelsea
9 p m—Jefferson Medical College alumni reunion and smoker at Hotel Royal Palace.
8:30 p m—Medico Chirurgical College of Philadelphia alumni reunion and smoker at Hotel Rudolf
8 p m—Vanderbilt University Medical Department alumni banquet at Young's Hotel

Other alumni reunions are to be held this same evening for medical departments of the University of Vermont and the University of Minnesota and for Long Island Medical College and Tufts' Medical School.

"Wiener Studenten" will hold a reunion, supper and smoker at Old Vienna, Wednesday, June 9, at 6:30 p. m.

The University of Pennsylvania Medical Department alumni will have lounging, smoking and writing rooms at Young's Hotel the entire week; Vanderbilt medical alumni will also have their headquarters at Young's Hotel.

HOTEL HEADQUARTERS

A large list of hotels with an elaborately tabulated schedule of rates and accommodations, and also with a map of Atlantic City showing the locations of the hotels, appeared in THE JOURNAL, May 1, page 1410. Attention is again called to this list with a recommendation that members secure accommodations in advance. There will be no lack of accommodations in Atlantic City, but the headquarters hotels are apt to be filled before the session, and those who have special preferences as to hotels should secure accommodations at once The following hotels have been designated as headquarters for the various sections in order that the section members may group themselves in hotels if desired:

OPENING SESSION.... ...Auditorium Young's New Pier
GENERAL HEADQUARTERS..... .. Marlborough-Blenheim
PRACTICE OF MEDICINE .... .Hotel Dennis
SURGERY AND ANATOMY ....Hotel Chalfonte
OBSTETRICS AND DISEASES OF WOMEN.... ..Haddon Hall
DISEASES OF CHILDREN .. . . Hotel Traymore
NERVOUS AND MENTAL DISEASES..... Hotel Brighton
HYGIENE AND SANITARY SCIENCE..... Hotel Seaside
PHARMACOLOGY AND THERAPEUTICS..... Hotel Chelsea
OPHTHALMOLOGY..... ... . .Hotel Rudolf
LARYNGOLOGY AND OTOLOGY . .....Hotel St Charles
CUTANEOUS MEDICINE AND SURGERY.....Hotel Shelburne
PATHOLOGY AND PHYSIOLOGY..... .. . Hotel Windsor
STOMATOLOGY ....Hotel Royal Palace

OTHER SOCIETIES TO MEET

Many other societies will meet in connection with the Association session, as already announced. The American Society for the Study of Alcohol and Other Narcotics will hold its thirty ninth annual meeting at Young's Hotel, June 7 to 9 A temperance lunch will be served at 1 p m, Wednesday, June 9, at Young's Hotel. This will be addressed by many eminent physicians, and is an occasion for the gathering of physicians who are interested in the scientific study of the alcoholic problem A cordial invitation is extended to all. For programs and further particulars, address Dr. T. D. Crothers, Hartford, Conn.

BUREAU OF INFORMATION, REGISTRATION, POSTOFFICE, ETC

The registration bureau, at which all members should register as soon as they have secured hotel accommodations, is located at the shore end of Young's old pier Adjoining the registration department is a branch postoffice, as well as telephone and telegraph booths, and bureau of information where one may learn about hotels, transportation, meeting places, entertainments, etc. Occupying the major part of this same pavilion will be the Commercial Exhibit and the Scientific Exhibit, which will receive careful examination from most of the visitors.

ATLANTIC CITY NUMBER

Part of the above announcements are repeated from the Atlantic City Number of THE JOURNAL, May 1, to which readers are referred for further details. That issue contained an illustrated article on Atlantic City and its fame as a watering place. The preliminary programs of the twelve sections were given and much other interesting matter concerning the approaching session.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed

SYNONYMS FOR CHLORID OF LIME

To the Editor—What is the chemical formula of "hypochlorite of lime"? I found this term in the article "A Case of Poisoning from the Bite of a Rattlesnake," by Charles S White (THE JOURNAL, May 8 1909 lii, 1486), which states (p 1844) that "the best chemical antidote is 2 per cent solution of the hypochlorite of lime" G H PINLGIN, M D, Yonkers, N Y

ANSWER—"Hypochlorite of lime" and "chlorid of lime" are terms often applied to the official chlorinated lime Chlorinated lime is a mixture consisting essentially of calcium chlorid—$CaCl_2$—and calcium hypochlorite—$Ca(OCl)_2$—in molecular proportions Besides these constituents, chlorinated lime also contains calcium hydroxid, calcium carbonate as well as some other calcium salts

ACID NITROUS ETHER MAY EFFERVESCE WITH POTASSIUM ACETATE

To the Editor—I should like information as to what occurs in the following prescription

℞
Potassii acetatis (vel citratis)..... 125
Spt ætheris nitrosi 15
Aquæ q s ad 125
M

After mixing, a marked ebullition takes place, which is somewhat retarded if glycerin is added What gas is generated? If it is ethyl nitrite why is that combination prescribed? O P

ANSWER—A neutral potassium acetate or potassium citrate and neutral spirits of nitrous ether, when dissolved in water, should not cause effervescence Spirit of nitrous ether is liable to be of acid reaction, while potassium acetate and potassium citrate may contain small amounts of carbonate Under these conditions, when mixed, effervescence will of course occur and carbon dioxid gas will be generated The addition of glycerin does not prevent, but may slightly retard, the reaction No decomposition of the medicinal ingredients takes place It should be remembered, however, that ethyl nitrite, while fairly permanent when dissolved in alcohol (spirits of nitrous ether), is decomposed (hydrolyzed) rather readily by water The above mixture therefore decomposes gradually when kept

BILLROTH'S ANESTHESIA SOLUTION

To the Editor—Will you kindly publish in your Queries and Minor Notes department the formula of Billroth's solution for anesthesia? E B QUILLER, Wilmington, N C

ANSWER—Billroth's A C E mixture consists of chloroform 3 parts and ether and alcohol 1 part each

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U. S Army, for the week ended May 22, 1909.

Truby, A E, major, ordered to accompany Company A, Eng, to Washington Barracks, D C, and then return to San Francisco

Winter, Francis A, major, granted leave of absence for 1 month, about July 1

Baker, David, major, granted leave of absence for 2 months

Reasoner, M A, 1st lieut, granted leave of absence for 24 days; relieved from duty at Fort Caswell, N. C, and ordered to Vancouver Barracks, Wash, for duty

Stuckey, H W, 1st lieut, M R C, relieved from duty in the Philippines Division and ordered to sail August 15 from Manila, P I, for San Francisco

Stallman, G P 1st lieut, M R C, ordered from San Francisco to Fort Douglas, Utah for duty

Park, Roswell, 1st lieut, M R C, ordered to active duty May 26 to June 1, will report to Washington and deliver the address to the graduating class of the Army Medical School, May 29

Hull, A R, M R C, granted leave of absence to May 31

McLeod, H C, 1st lieut, M R C, relieved from duty in Philippines Division; will proceed on first available transport to San Francisco

Craig, E J, D S, left Fort Leavenworth, Kans, and arrived at Fort Omaha, Nebr, for duty

Ryan, E P R, D S, left Fort Leavenworth, Kans, and arrived at Fort Robinson, Nebr, for duty.

Mills, R H, D S, ordered to proceed from Monticello, Fla, to Fort Adams, R I, for duty

Laflamme, F L K, D S, ordered to proceed from Rumford, Me, to Fort Thomas, Ky, for temporary duty, and, on completion, to Fort Sheridan, Ill, for duty.

Waddell, R. W., D. S., contract annulled at his own request.
Hussey, S. W., D. S., contract annulled at his own request.
Tignor, E. P., D. S., relieved from temporary duty at Fort Monroe, Va., and further duty at Fort Adams, R. I.; will proceed to Fort Slocum, N. Y., for duty.
Carpenter, Alden, D. S., relieved from temporary duty at Fort Slocum, N. Y., and ordered to return to his proper station, Fort Hancock, N. J.
Whinnery, J. C., D. S., left Fort Liscum, Alaska, and arrived at Fort William H. Seward, Alaska, for duty.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ended May 22, 1909:

Huntington, E. O., surgeon, detached from the Naval Station, San Juan, P. R., and ordered to the Naval Medical School Hospital, Washington, D. C., for treatment.
Cecil, A. B., and Walton, D. C., acting asst.-surgeons, appointed acting asst.-surgeons from May 12, 1909.
Bucher, W. H., surgeon, ordered to report to the president of the Naval Retiring Board at the Navy Yard, Mare Island, Cal., May 31, for examination by the board and thence to treatment at the Naval Hospital, Mare Island, Cal., until further orders.
Fiske, C. N., P. A. surgeon, detached from the Navy Yard, Washington, D. C., and ordered to the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.
Hart, S. D., acting asst.-surgeon, ordered to duty at the Naval Hospital, New York.
Leach, P., medical inspector, commissioned medical inspector, with rank of commander, from April 1, 1909.
Payne, J. H., P. A. surgeon, detached from the *Salem* and directed to wait orders.
Zalesky, W. J., P. A. surgeon, detached from the Naval Station, New Orleans, and ordered to the *Salem*.
Ryder, C. E., P. A. surgeon, detached from the *Vermont* and ordered to the Massachusetts nautical training ship *Newport*.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service, for the seven days ended May 19, 1909:

White, J. H., surgeon, detailed to represent the service at the annual meeting of the American Medical Association, to be held in Atlantic City, N. J., June 8-11, 1909.
Rosenau, Milton J., surgeon, granted 2 months' leave of absence from April 8, 1909, on account of sickness.
Ramus, Carl, P. A. surgeon, granted 1 day's leave of absence, May 11, 1909, on account of sickness.
Miranda, Rafael U. L., acting asst.-surgeon, granted 1 month's leave of absence from June 1, 1909, and 3 months' leave of absence, without pay, from July 1, 1909.
Small, Edward M., acting asst.-surgeon, granted 10 days' leave of absence from May 19, 1909.

PROMOTIONS

Gardner, Charles H., Blue, Rupert, Oakley, James H., and Sprague, Ezra K., P. A. surgeons, commissioned surgeons, to rank as such from May 1, 1909.

CASUALTY

Wightman, William M., P. A. surgeon, died from yellow fever in Guayaquil, Ecuador, May 16, 1909.

RESIGNATION

Watters, M. H., pharmacist, resigned, to take effect May 13, 1909.

BOARDS CONVENED

Board of medical officers convened to meet at the Marine Hospital, Boston, May 14, 1909, for the purpose of making a physical examination of an applicant for appointment as cadet in the Revenue-Cutter Service. *Detail for the board:* Surgeon L. L. Williams, chairman; P. A. Surgeon T. W. Salmon, recorder.

Health Reports

The following cases of [illegible] yellow fever, cholera and plague have been reported to [illegible] d, Public Health and Marine-Hospital Service, [illegible] ded May 21, 1909:

SMALLPOX—UNITED STATES

California: Sacramento, May 1-8, 5.
Illinois: Alton, April 1-30, 2 cases; Danville, May 2-9, 15 cases; Chicago, May 1-8, 1 case; Galesburg, 1 case; Peoria, April 1-30, 44 cases; Springfield, April 30-May 7, 3 cases.
Indiana: Indianapolis, May 2-9, 1 case; South Bend, May 1-8, 1 case.
Iowa: Council Bluffs: May 3-10, 1 case.
Kansas: Kansas City, May 1-8, 3 cases; Wichita, 2 cases.
Kentucky: Lexington, May 1-8, 1 case; Newport, 2 cases.
Michigan: Saginaw, May 1-8, 7 cases.
Minnesota: Duluth, April 30-May 6, 2 cases.
Missouri: Kansas City, April 17-May 8, 10 cases; St. Joseph, March 27-April 3, 1 case; St. Louis, May 1-8, 1 case.
Montana: Butte, April 20-May 4, 7 cases; Great Falls, April 24-May 1, 1 case.
New Jersey: Camden, May 1-8, 2 cases; Trenton, 1 death.
New York: Little Falls, April 24-May 8, 2 cases.
Ohio: Ashtabula, April 17-May 8, 2 cases; Cincinnati, April 30-May 6, 9 cases; Columbus, May 1-8, 1 case.
Tennessee: Nashville, May 1-8, 1 case.
Virginia: Richmond, April 30-May 1, 1 case.
Washington: Spokane, April 30-May 1, 4 cases.
Wisconsin: La Crosse, May 1-8, 1 case.

SMALLPOX—INSULAR

Philippine Islands: Manila, March 27-April 3, 3 cases, 1 death.

SMALLPOX—FOREIGN

Canada: Halifax, April 24-May 1, 1 case; Yarmouth, May 1-8, 1 case.
Ceylon: Colombo, Feb. 13-March 27, 37 cases, 8 deaths.
China: Amoy, March 27-April 3, present; Canton, March 20-27, 20 cases.
Egypt: Cairo, March 25-April 8, 28 cases, 10 deaths.
Gibraltar: March 26-May 2, 1 case.
India: Bombay, April 6-13, 15 deaths; Calcutta, March 26-April 3, 281 deaths; Rangoon, 14 deaths.
Italy: General, April 18-25, 9 cases; Naples, 13 cases, 1 death.
Java: Batavia, March 20-April 3, 7 cases, 2 deaths.
Manchuria: Dalny, April 3-10, 5 cases, 1 death.
Mexico: Chihuahua, April 18-May 2, 4 cases; Monterey, April 25-May 2, 16 deaths.
Russia: Batoom, March 1-31, 2 cases; Moscow, April 10-17, 28 cases, 13 deaths; Odessa, April 3-17, 23 cases, 2 deaths; Riga, April 18-21, 2 cases; St. Petersburg, March 27-April 10, 46 cases, 11 deaths; Warsaw, Feb. 13-20, 2 deaths.
Siam: Bangkok, Feb. 1-28, 111 cases, 72 deaths.
Spain: Barcelona, April 19-26, 5 deaths; Valencia, April 17-24, 10 cases.
Straits Settlements: Singapore, March 20-27, 1 death.

YELLOW FEVER

Barbados: April 25-May 1, 4 cases.
Brazil: Para, April 10-17, 6 cases, 6 deaths.
Ecuador: Guayaquil, March 20-April 3, 72 cases, 34 deaths.

CHOLERA—INSULAR

Philippine Islands: Provinces, March 25-April 3, 177 cases, 82 deaths.

CHOLERA

India: Bombay, April 6-13, 97 deaths; Calcutta, March 26-April 3, 129 deaths; Rangoon, 8 deaths.
Russia: St. Petersburg, April 22-28, 12 cases, 1 death.

PLAGUE

Arabia: Mascat, April 14, 1 case, 1 death, imported.
Australia: New Castle, March 1-31, 1 case, imported; Sydney, March 6-12, 4 cases, 1 imported.
Chile: Antofagasta, April 7, 10 cases; Iquique, April 8, 17 cases.
China: Amoy, March 27-April 3, present; Chang Chew, epidemic.
Ecuador: Babohoyo, March 20-27, 2 cases; Guayaquil, March 20-April 3, 34 cases, 12 deaths.
India: Bombay, April 6-13, 370 deaths; Calcutta, March 27-April 3, 94 deaths; Rangoon, 29 deaths.
Japan: Kobe, April 3-17, 2 cases; Formosa, March 27-April 10, 123 cases, 99 deaths.
Peru: General, April 10-17, 29 cases, 19 deaths; Callao, 4 cases, 3 deaths; Lima, 10 cases, 4 deaths.

Marriages

R. C. Bowman, M.D., to Miss Blanche Smith, both of Philadelphia, May 12.

LeRoy H. Saxe, M.D., to Miss Estelle S. Gerhart, both of Telford, Pa., April 28.

Charles N. Allison, M.D., Canton, Ill., to Miss Fern Barnes of Paulding, Ohio, May 1.

Mary L. D. Bickings, M.D., to Harold Thornton, both of Philadelphia, Pa., April 30.

William W. Lewis, M.D., St. Paul, Minn., to Miss Barbara Haug of Duluth, March 22.

Andrew Colin Gillis, M.D., Baltimore, to Miss Bertha Fischer, at Baltimore, May 4.

Reu A. Hand, M.D., Camden, N. J., to Miss Elizabeth Hughes Blattner of Cape May, N. J., May 11.

Cordy N. Pate, M.D., Fort Smith, Ark., to Miss Ione Gayden of Winona, Miss., May 7.

Don C. Hughes, M.D., Findlay, Ohio, to Mrs. Laura Lingenfelter, at Chicago, April 20.

Virginius Dabney, M.D., to Miss Ada Louise Newlands, both of Washington, D. C., May 18.

William H. Streng, M.D., Spring Grove, Ill., to Miss Ada Richardson of Richmond, Ill., recently.

Edgar S. McIlvain, M.D., Manila, P. I., to Miss Saidee Dougherty of Nashville, Tenn., May 12.

Walter Baer Weidler, M.D., Lancaster, Pa., to Miss Grace Langley at New York City, April 20.

Dwight Gordon Smith, M.D., Washington, D. C., to Miss Emily Griffin Reid, at Washington, May 11.

C. S. Floyd, M.D., Loganville, Ga., to Miss Birdie Scott of Norwood, Ga., at Stone Mountain, Ga., May 6.

Stanford K. Winsor, M.D., Anand, British India, to Miss Bessie Marie Carroll of Chicago, May 11.

William Theophilus Chapman, M.D., Uniontown, Pa., to Miss Wilbia May Newson of Monessen, Pa., May 12.

Deaths

Thomas J. Happel, M.D.

Dr. Thomas J. Happel, one of the most earnest, faithful and efficient members of the American Medical Association, died at his home in Trenton, Tenn., May 24, from brain tumor, after a protracted illness, aged 62.

He was born in Greensboro, Alabama, Jan. 24, 1847. Enlisted as a boy as a soldier in the Confederate Service; he was taken prisoner in 1864, and imprisoned in Mobile until the close of the Civil War.

He was graduated from the medical department of the University of Virginia, Charlottesville, in 1871, and in the following year from New York University.

He was a member of the American Medical Association for many years, vice-president in 1897, a member of the Board of Trustees from 1898 until the time of his death and chairman of the board from 1901 to 1908. Those who were present at the meeting of the Association in Denver in 1898 will remember the splendid record he made as presiding officer on that occasion when the notable discussion of the rules of ethics took place.

He served as president of the Tennessee State Medical Association, of the Gibson County Medical Association, the Tri-State Medical Association of Tennessee, Arkansas and Mississippi, and West Tennessee Medical and Surgical Association. He was health officer of Gibson County for sixteen years, and president of the Trenton board of health for twenty-eight years and secretary and treasurer of the State Board of Medical Examiners since its organization in 1889, and during this time compiled and issued the state directory, which stands as a monument to his painstaking labor. He also served as vice-president of the Association of Southern Railway Surgeons, and the National Association for the Study and Prevention of Tuberculosis. He was for many years local surgeon of the Mobile and Ohio Railroad, and a member of the local board of pension examining surgeons.

For a number of years he had been a member of the Board of Aldermen of Trenton, and to him is given the credit of the high position that city holds in regard to paving, light, and water supply, as well as low taxation.

THOMAS J. HAPPEL, M.D., 1847—1909

Dr. Happel was always in the forefront of all work for the good of the community in which he lived, and the profession which he honored. He was known throughout the state and the South, and was universally beloved. He was one of the most esteemed and most conscientious members of the Board of Trustees of the American Medical Association and was always ready to give freely of his counsel and his time for the upbuilding of the Association. Those who have had the pleasure of being associated with him will not soon lose the inspiration of this noble life.

William Martin Wightman, M.D. Cooper Medical College, San Francisco, 1899; a member of the American Medical Association; who entered the Public Health and Marine-Hospital Service, in 1902, a year later was made assistant surgeon, and in 1908 was promoted to the grade of passed assistant surgeon; one of the ablest of the younger officers of the service; died from yellow fever, May 16, at his station in Guayaquil, Ecuador, where he had been sent to observe and take measures for preventing the spread of yellow fever, aged 33.

William L. Steele, M.D. Medical College of the State of South Carolina, Charleston, 1857; formerly president of the Association of Montana Pioneers; for one term sheriff, for ten years coroner, and for two terms treasurer of Lewis and Clark county, Mont.; for four years state senator; for one term alderman, and for three terms mayor of Helena; died at his home in Helena, May 16, from cerebral hemorrhage, aged 76.

Isaac Francis Galloupe, M.D. Harvard Medical College, Boston, 1849; a member of the Massachusetts Medical Society; surgeon of the Seventeenth Massachusetts Volunteer Infantry and later brigade and division surgeon and medical director of the Eighteenth Army Corps during the Civil War; and a prisoner in Libby Prison, Richmond, Va.; formerly city physician and a member of the board of U. S. pension examining surgeons and of the school board of Lynn, Mass.; died at his home, May 17, from paralysis, aged 85.

Charles M. Thompson, M.D. College of Physicians and Surgeons, Chicago, 1883; a member of the Michigan State Medical Society; a member of the first village council and at one time health officer of Elk Rapids, Mich.; died at his home from aneurism of the aorta, May 10, aged 44.

Charles Bates Tower, M.D. Harvard Medical School, Boston, 1881; died at his home in Cambridge, Mass., May 14, aged 66.

William R. Bird, M.D. College of Physicians and Surgeons, Baltimore, 1880; a member of the Medical Society of the State of Pennsylvania; died at his home in Chester. May 13, from pneumonia, aged 51. At a special meeting of the Delaware County Medical Society, a committee was appointed to prepare and present suitable resolutions regarding the death of Dr. Bird.

Gerardus Hilles Wynkoop, M.D. College of Physicians and Surgeons, New York City, 1866; a member of the Medical Society of the State of New York, consulting surgeon to the Northern Dispensary, New York City; visiting surgeon to St. Luke's and the Roosevelt hospitals; died at his home May 16, from peritonitis, three days after an operation for appendicitis, aged 65.

C. Helge Browall, M.D. University of Stockholm, Sweden, 1895; local surgeon at Ada, Okla., for the Oklahoma Central Railroad; president of the local health board, and city physician of Ada; died in the St. Vincent de Paul Sanitarium, Sherman, Texas, May 14, from septicemia, due to an operation wound, aged 38.

Rachel S. Skidelsky, M.D. Woman's Medical College of Pennsylvania, Philadelphia. 1894; a member of the Medical Society of the State of Pennsylvania and prominent as a philanthropist; physician to the Home for Jewish Girls, Philadelphia; died at her home in that city, May 13, from pneumonia, aged 53.

Salvatore Gomez, M.D. Long Island College Hospital, 1891; formerly acting assistant surgeon P. H. and M.-H. Service at Gibara, Cuba; for eight years port physician at Sastia, and since May head physician of the Spanish-American Iron Company's Hospital; died in that institution, May 16, aged 47.

Charles E. Witbeck, M.D. Albany (N. Y.) Medical College, 1866; a member of the American Medical Association; president of the staff of the Cohoes, N. Y., Hospital; for many years health officer and member of the board of health of Cohoes; died at his home, May 13, from nephritis, aged 65.

John Eberle Payton, M.D. Willamette University, Salem, Ore., 1877; a member of the American Medical Association; a member of the Board of Health and a prominent practitioner and citizen of Redlands, Cal.; died from tuberculosis, at the Pottenger Sanatorium, Monrovia, Cal., May 10, aged 51.

George W. Fisher, M.D. Georgetown University, Washington, D. C., 1870; a veteran of the Civil War; and for several years a clerk in the record and pension division of the War Department, Washington; died May 17, at his home in Anacostia, Washington, D. C., aged 69.

John Grove Speer, M.D. Transylvania University, Lexington, Ky., 1830; for a time probate judge of Macon county, Ill., and a resident of Decatur, and later a practitioner of Floydsburg, Ky.; died at the home of his son in Alton, Ky., from influenza, May 2, aged 100.

Alta Fremont Cook, M.D. University of Michigan, Ann Arbor, 1881; a member of the American Medical Association; acting assistant surgeon P. H. and M.-H. Service; was found dead in his office in Sandusky, Ohio, May 14, from valvular heart disease, aged 58.

John C. Edward Kaiser, M.D. University of Berlin, Germany, 1870; lecturer on histology and embryology at his alma mater in 1874; and professor of anatomy at the Humboldt Academy, Berlin, in 1876; died at his home in Green Bay, Wis., May 17, from heart disease, aged 56.

Joseph Edgar Grimsley, M.D. University of Virginia, Charlottesville, 1883; of Greensboro, N. C.; a member of the Medical Society of the State of North Carolina; died in St. Leo's Hospital, Greensboro, May 15, from septicemia, due to an operation wound, aged 49.

Joseph B. Kinley, M.D. Hahnemann Medical College, Chicago, 1885; dean of the Denver College of Physicians and Surgeons; died suddenly May 13, from concussion of the brain following a fall due to vertigo, at a banquet of the graduating class of the college, aged 49.

William Long, M.D. Georgetown University, Washington, D. C.; chief chemist in the Bureau of Engraving and Printing, Washington; a chemist, linguist, and musician of note; died in the Emergency Hospital, Washington, May 14, from cerebral hemorrhage, aged 50.

Charles Appleton Packard, M.D. Medical School of Maine, Brunswick, 1856; a fellow of the American Academy of Medicine; for 20 years physician to the Military and Naval Orphans' Hospital, Bath, Maine; died at his home, March 23, from arteriosclerosis, aged 80.

Francis Marion Savage, M.D. Louisville, 1870; for several years president of the U. S. board of pension examining surgeons at South McAlester, I. T.; twice postmaster of Hartshorne, Okla.; a veteran of the Civil War; died at his home in Hartshorne, Nov. 8, 1908, aged 76.

Robert H. Seymour, M.D. University of Dublin, Ireland, 1870; a member of the State Medical Association of Texas; and for several years secretary of the Fayette County Medical Society; died at his home in Warrenton, March 26, aged 57.

Durell Shepard, M.D. Yale University, New Haven, 1864; a member of the American Medical Association; acting assistant surgeon in the Army during the Civil War; died at his home in West Haven, Conn., from senile debility, May 16, aged 77.

John S. Lupton, who retired from practice forty-five years ago on account of deafness and was the pioneer fruit grower of the Shenandoah Valley; died at his home in Winchester, Va., Nov. 6, 1908, from paralysis, aged 80.

Joshua Swigert, M.D. Washington University, Baltimore, 1863; formerly of Brazil, Ind.; died in the Cook County Institutions, Dunning, Ill., May 3, from exhaustion, due to chronic morphinism, aged 71.

Samuel G. Statler, M.D. Jefferson Medical College, Philadelphia, 1851; a member of the Medical Society of the State of Pennsylvania; died at his home in Alum Bank, May 13, from senile debility, aged 82.

Asa Walter Jayne, M.D. Homeopathic Medical College, New York City, 1879; of North Tonawanda, N. Y.; coroner of the first Niagara District; died in Buffalo, Nov. 16, 1908, from pneumonia, aged 58.

Arthur C. L. Fox, M.D. McGill University, Montreal, 1898; of Montreal; formerly an oarsman of repute in western Canada; died in the Royal Victoria Hospital, Montreal, March 31, aged 44.

Thomas Hall, M.D. Harvard Medical School, Boston, 1866; of Boston, a member of the Massachusetts Medical Society; died in Chelmsford Center, Mass., May 14, from cerebral embolism, aged 70.

Alfred Knox Middleton, M.D. Louisville, 1851; surgeon in the Confederate Service during the Civil War; died at his home in Arlington, Texas, April 14, 1908, from senile debility, aged 78.

Alfred P. Pierce, M.D. University of Buffalo, N. Y., 1898; a member of the Medical Society of the State of Pennsylvania; died at his home in Bradford, Aug. 15, 1908, from uremia, aged 45.

Sam L. Holcomb, M.D. St. Louis; for many years a practitioner of Pike county, Mo.; died at the home of his brother in Cherokee, Texas, Oct. 17, 1908, from cerebral hemorrhage, aged 73.

John Farquhar McDonald, M.D. Harvard Medical School, Boston, 1868; formerly of Elmsdale and Hopewell, N. S.; died at his home in Shubenacadie, N. S., in November, 1908, aged 71.

Samuel Gager Johnson, M.D. New York University, New York City, 1878; died at his home in Bozrah, Conn., April 3, from influenza and secondary anemia, aged 60.

William Devereaux Kendall, M.D. University of Pennsylvania, Philadelphia, 1858; a Confederate veteran; died at his home in Paris, Tenn., May 8, aged 64.

Bradley Crippen, M.D. Western Reserve University, Cleveland, 1861; a veteran of the Civil War; died at his home in Coldwater, Mich., March 17, aged 64.

Andrew J. Bobbs, M.D. Medical College of Ohio, Cincinnati, 1854; a pioneer practitioner of Marion, Ind.; died at his home in that city, May 13, aged 76.

Margaret Richardson, M.D. Woman's Medical College of Pennsylvania, Philadelphia, 1853; died at her home in Norristown, Pa., May 15, aged 91.

Manfred H. McDonald, M.D. Bellevue Hospital Medical College, New York City, 1873; died at his home in Hempstead, N. B., February 28, aged 62.

William S. Moslander, M.D. Hahnemann Medical College, Philadelphia, 1889; died at his home in Camden, N. J., May 12, from tuberculosis, aged 49.

Theodore Miller, M.D. New York University, New York City, 1873; died at his home in Califon, N. J., May 14, from lung disease, aged 60.

Alter Louis Slonaker, M.D. Western Pennsylvania Medical College, Pittsburg, 1889; died at his home in East End, Pittsburg, May 14, aged 46.

Cornelius W. Parker, M.D. Southern Botanico-Medical College, Macon, Ga., 1853; died at his home in Atlanta, May 15, aged 80.

George W. Landis, for many years a practitioner of North Carolina; died at his home in Durham, Sept. 22, 1908, aged 67.

John Hammel, M.D. Kentucky School of Medicine, Louisville, 1880; died at his home in Buckskin, Ind., May 12, aged 54.

David Randall, M.D. St. Louis, 1836; died at his home in Norwalk, Cal., Sept. 18, 1908, from senile debility, aged 98.

James Henry Payne, M.D. New York University, New York City, 1849; died at his home in Boston, May 14, aged 85.

Book Notices

THERAPEUTICS OF THE CIRCULATION. *Eight Lectures Delivered in the Spring of 1905 in the Physiologic Laboratory of the University of London.* By Lauder Brunton, Kt., M.D., D.Sc., LL.D. (Edin.), LL.D. (Aberd.), F.R.C.P., F.R.S., Consulting Physician to St. Bartholomew's Hospital. Cloth. Pp. 280, with illustrations. Price, $1.50. Philadelphia: P. Blakiston's Son & Co., 1908.

These lectures, delivered in 1905, have been revised by the author. The reader who expects to find only a treatise on therapeutics of the circulation will be disappointed because 108 of the 280 pages in the book are devoted to physiology and the instruments by which this subject can be studied in the laboratory and clinic. This portion of the book is written in Brunton's usual style, and is full of his own observations and interpretations of facts. Lectures 4 and 5 discuss the therapeutics of various heart diseases and conditions. The two succeeding chapters describe the physiologic and therapeutic action of such drugs as digitalis, adrenalin, strychnin, caffein, amyl nitrite, isobutyl nitrite, hydroxylamin, nitrogly-

cerin, nitroerythrin, nitromannite, tobacco, aconite, general and local bleeding, diet and regimen, Nauheim and Oertal treatments, exercise, etc. Several appendices and full indexes follow these lectures. This book is full of the interest which Brunton's personality gives to all his writings. It also possesses the defect of most lectures, in that many topics are too briefly considered and others too much in detail. The book is attractive and copiously illustrated.

TUBERCULOSIS OF THE NOSE AND THROAT. By Lorenzo B. Lockard, M.D., Laryngologist and Rhinologist to the Jewish Consumptives' Relief Society Sanatorium. Cloth. Pp. 368, with illustrations. Price, $5. St. Louis: C. V. Mosby Co., 1909.

Dr. Lockard reviews the entire subject of tuberculosis of the larynx, pharynx and nose. He begins with a digest of the history of the subject, follows this with well-selected statistics, and then enters into clinical details and treatment. Throughout the treatise he shows thorough familiarity with the literature, as well as extensive personal experience. His own experience leads him to take definite position regarding many questions under discussion. This makes the book a satisfactory one for clinical reference. Notwithstanding its bulk, the work contains neither unnecessary repetitions nor padding; it can be recommended to any one interested in the subject. Its therapeutic teaching is judicious and conservative, though often rather optimistic—the optimism being justified, no doubt, by the climatic advantages of Dr. Lockard's practice. It is to be regretted, perhaps, that he takes so reserved a position toward all forms of tuberculin treatment, even though this treatment has not yet been successfully applied to tuberculous diseases of the throat. The influence of tuberculin treatment on tuberculosis in other parts of the body has been so often demonstrated that laryngologists can not afford to be indifferent to it. The numerous laryngoscopic illustrations may be somewhat criticized from an artistic point of view, but for clinical purposes they are good and useful.

OPERATIVE MIDWIFERY. By J. M. Munro Kerr, M.B., C.M., Glas., Fellow of the Faculty of Physicians and Surgeons, Glasgow. Cloth. Pp. 705, with illustrations. Price, $6.00. New York: William Wood & Co., 1908.

This work deals mainly with the abnormal part of obstetrics, and in this respect at least in the English language, stands alone. Dr. Kerr dwells at length on causes of dystocia, and attempts to impress the necessity of an early, careful, scientific examination of every pregnant woman. These chapters abound in most excellent advice, and can be read frequently with profit. While Dr. Kerr is not dogmatic, still he has some set ideas which do not appeal to us on this side of the water. For instance, he is enthusiastic over the symphyseotomy operation; says that he can see no reason to abandon it, and presents statistics which really give him ground for such an opinion. Pubiotomy, he says, will not displace it, or at least he is willing to wait until the pubiotomy craze is over and we can draw a calm dispassionate conclusion of its merits. We in America have never had a high opinion of the operation of symphyseotomy, and, as he says, most of the criticism has come from those who have never performed it. He admits that there are no fast rules to be followed in every case, and says that one is not long in obstetrical practice without finding out that Nature in parturition, although generally following a certain course, refuses to be trammeled by hard and fast rules. It is for the accoucheur to bear in mind, however, Nature's limits. The mistake is often made of forgetting these limits and of interfering with Nature in cases in which a little patience would render such interference unnecessary.

Diagnosis, examination by external palpation and auscultation and contracted pelvis are considered more fully than is usual. Dr. Kerr has little faith in instrumental measurement of the internal pelvis, and relies principally on the hand and on the judgment which comes from experience. Radiography, in estimating the size of the pelvis, or relation of the head to the pelvis, has not proved of value in his hands. He advises prophylactic cephalic version in breech cases in the last week or two of pregnancy, a treatment which has many warm advocates, but which seems to be open to criticism. The 294 illustrations are mostly original and highly instructive.

THE HERTER LECTURES (NEW YORK, 1908) ON THE FLUIDS OF THE BODY. By Ernest H. Starling, M.D., F.R.C.P., F.R.S., Jodrell Professor of Physiology in the University College, London. Cloth. Pp. 186, with illustrations. Price, $2. Chicago: W. T. Keener & Co., 1909.

This book contains eight lectures given all but one under the Herter foundation at the Bellevue Hospital and University Medical School in 1908. The subjects discussed are the physical properties of protoplasm, the osmotic relationships of cells, the intake of fluid, the exchange of fluids in the body and the production of lymph, the absorption of the interstitial fluids, the output of fluid, the fluid balance of the body, and the causation of dropsy. The presentation is interesting. Dr. Starling speaks his own views, which no doubt will stimulate discussion among workers in this field. To physicians who desire to follow the growth of knowledge of the physicochemical processes in the body, the book is recommended most heartily as sure to be read with interest and profit.

THE PROBLEM OF AGE, GROWTH AND DEATH. A Study of Cytomorphosis Based on Lectures at the Lowell Institute, March, 1907. By Charles S. Minot, LL.D., D.Sc., James Stillman Professor of Comparative Anatomy in the Harvard Medical School. Cloth. Pp. 280, with illustrations. Price, $2.50. New York: G. P. Putnam's Sons, 1908.

In this volume the distinguished author summarizes the results of his scientific work on the problem of age, growth and death. It appears that for twenty-five years and more this problem has occupied his scientific interest. Desire to get at actual facts led to a long and comprehensive series of observations on the growth of certain animals in order to secure vantage ground for attack on the changes affected by age, changes that have been studied but little in a systematic way. Says Dr. Minot: "Age causes many progressive changes in the organism, but none which are more obvious and more accessible to exact study than those of growth." Most of the very valuable observations on growth as a function of age were made on guinea-pigs, the growth being measured by weight.

The book itself is divided in six chapters, the subjects being the condition of old age, cytomorphosis, the cellular changes of age, the rate of growth, differentiation and rejuvenation, regeneration and death, and the four laws of age.

The four laws of age, which in a way constitute the conclusions, are: First, rejuvenation depends on an increase of the nuclei; second, senescence depends on the increase of the protoplasm, and on the differentiation of the cells; third, the rate of growth depends on the degree of senescence; fourth, senescence is at its maximum in the very young stages, and the rate of senescence diminishes with age.

Dr. Minot carefully refrains from any suggestions as to the actual causes of the increase in the amount of protoplasm that characterizes senescence, confining himself entirely to morphologic considerations.

The book constitutes an important contribution to general biology. The presentation is excellent, the style clear and lucid.

THE THEORY OF IONS. A Consideration of Its Place in Biology and Therapeutics. By William Tibbles, M.D. (Hon. Causâ), Chicago, LL.D., L.R.C.P.E., M.R.C.S., L.S.A., etc. Cloth. Pp. 131. Price, $1. New York: Rebman & Co., 1909.

Dr. Tibbles attempts to account for all biologic processes on the basis of ionization. As practically all chemical reactions are between ions, and as all biologic processes are directly or indirectly the result of chemical reactions, the proposition would seem to be self-evident. The reader will find a brief semi-popular discussion of the principles of the ion theory, but the logic of much of Dr. Tibbles' theorization is difficult to follow. His facts seem to have been obtained from standard authorities and therefore are reliable.

MILITARY HYGIENE. By R. H. Firth, Lieut.-Colonel Royal Army Medical Corps. Cloth. Pp. 299. Price, $1.40. Philadelphia: P. Blakiston's Son & Co., 1908.

This is a brief, succinct and practical manual of sanitation for soldiers, in which Colonel Firth takes up the causes of disease; the preventable diseases; principles of disease prevention; the recruit; physical training of the soldier; the barrack; water supply, food, clothing and equipment; the work of the soldier, the march, and the camp.

HOW TO NURSE SICK CHILDREN. By Charles West, M.D., Founder of and Late Physician to the Hospital for Sick Children, Great Ormond Street. With a Preface by George F. Still, M.D., Physician to Out-Patients, The Hospital for Sick Children. New Edition. Cloth. Pp. 52. Price, 40 cents. New York: Longmans, Green & Co., 1908.

While this book contains little that is likely to interest the physician, it should prove of value to mothers and nurses. It contains much practical advice and common sense, especially on points generally omitted from ordinary text-books of nursing. Emphasis is laid on the importance of truthfulness in dealing with children.

LEHMANN'S MEDIZINISCHE HANDATLANTEN. BAND XVII/I. Atlas und Grundriss der gerichtlichen Medizin, unter Benutzung von E. v. Hofmann's Atlas der gerichtlichen Medizin. Herausgegeben von Dr. Georg Puppe, Professor der gerichtlichen Medizin in Königsberg i. P. Mit 70 vielfarbigen Tafeln und 204 schwarzen Abbildungen. Parts I and II. Price, $5.00 per set. München: J. F. Lehmann's Verlag, 1908.

This work of about 700 pages appears in the form of two rather small volumes. It deals with the autopsy findings in death from any cause which may have a legal or forensic bearing and these findings are not only clearly described, but excellently illustrated in black and white and in colors. In addition to this methods of identification of both the living and the dead are described, together with the German laws governing the making of autopsies for medicolegal purposes and the giving of expert testimony and of certificates or opinions by medical men. The work contains much that is of value to physicians in general as well as to those who are especially engaged in medicolegal work.

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, JUNE 8-11.

American Academy of Medicine, Atlantic City, June 5-7.
Am. Assn. of Genito-Urinary Surgeons, Pocono, Pa., May 31-June 1.
Am. Assn. of Med. Milk Commissions, Atlantic City, June 7.
Am. Climatological Association, Fortress Monroe, Va., June 4-5.
American Dermatological Association, Philadelphia, June 3-5.
Am. Gastro-Enterological Association, Atlantic City, June 7-8.
American Laryngological Association, Boston, May 31-June 2.
American Laryn., Rhin. and Otol. Society, Atlantic City, June 3-5.
American Medico-Psychological Assoc., Atlantic City, June 1-4.
American Orthopedic Association, Hartford, Conn., June 14-16.
American Proctologic Society, Atlantic City, June 7-8.
American Surgical Association, Philadelphia, June 1-3.
American Urological Association, Atlantic City, June 7.
Con. of State and Prov. Bds. of No. Am., Washington, June 4-5.
Maine Medical Association, Portland, June 16-17.
Massachusetts Medical Society, Boston, June 15-16.
Natl. Con. State Med. Ex. and Licensing Bds., Atlantic City, June 7.
New Jersey Medical Society, Cape May, June 23-25.
Rhode Island Medical Society, Providence, June 1.
Wisconsin State Medical Society, Madison, June 30-July 2.

ASSOCIATION OF AMERICAN PHYSICIANS

Twenty-fourth Annual Meeting, held at Washington, D. C., May 11-12, 1909

The President, DR. VICTOR C. VAUGHAN, Ann Arbor, Mich., in the Chair

Officers Elected

The list of officers elected appeared in THE JOURNAL, May 22, page 1675.

The President's Address: The Physical Basis of Life

DR. VICTOR C. VAUGHAN, Ann Arbor, Mich.: The living cell is made up of active labile molecules, and these molecules consist of numerous atoms, and each atom contains a large group of electrons; atoms and electrons are in ceaseless, rhythmic motion, while groups of atoms are being constantly cast off of the molecule and replaced by new groups split off from matter outside the molecule. Metabolism, the one characteristic phenomenon of living matter, involves intramolecular change; consequently, the molecule and not the cell is the unit of life. Life is function and not form, and, moreover, it is a molecular function. In multicellular animals, such as man, we have colonies, or groups of cells, or organs, bound together. Each kind of cell has its own peculiar molecular composition, and through these living molecules the work of the organ is accomplished. We have heard much of late concerning the influence of mind on the body, and many who speak on this subject seem to assume that there is some entity, called mind, that controls the body, to which it is superior, and apart from which it may exist. This dualistic doctrine is as old as the philosophy of Plato; it always has been and remains to-day a dogma without scientific support, and as a hypothesis it has led to the discovery of no scientific fact. Every attempt to apply it to the treatment of disease has led to the development of conscious or unconscious charlatanism, and has resulted in more or less marked atavism. The term functional disease is now being used by those who know but little concerning the functions of the body in either normal or abnormal states. It seems to be inferred or assumed by those using this expression that a mysterious power has been given to some to set the mechanism of the disordered body aright. In truth, we have no evidence of the existence of a functional disease as thus understood. We may not always be able to find where the basic fault lies, but shall we for this reason stop looking for it, shut our eyes, give over our search and ask some individual quite ignorant of the body and its functions to undertake the task of inducing harmonious activities?

Three Cases of Amaurotic Family Idiocy with an Anatomic Study of One: A Preliminary Report

DRS. HARLOW BROOKS and HENRY WANDLESS, New York: This is a rare disease, affecting several members of the same family, and characterized by distinct lack of mental development, by a progressive weakness of all the muscles of the body, and by a defect in vision. It is generally fatal, the children dying as a rule in a condition of complete marasmus before the end of the second year of life. The pathology of the disease has been chiefly studied by ophthalmologists and neurologists. In the region of the macula lutea a whitish spot appears, in the center of which a cherry red point is seen. In the encephalon and throughout the entire spinal cord very extreme grades of ganglion cell degeneration are shown. The general consensus of opinion is that the degeneration is an aplastic one, a failure to progress and consequently a cell deterioration. Another theory is that the disease is toxic in origin. In the case subjected to special study, besides the changes usually found in cases of amaurotic family idiocy, we have found marked and more or less characteristic alterations in the thymus body and in the adrenal and pituitary glands. These lesions are of such nature as strongly to suggest long-standing atypical functional activity. With our certain knowledge of the dependency for proper growth and function of the central nervous tissues on the normal activity of these bodies, it seems justifiable to assume a possible causal relationship in this condition, though it is quite possible that these lesions in the ductless glands are merely concomitant or associated ones.

DISCUSSION

DR. B. SACHS, New York: I am not yet willing to go to the length Dr. Brooks has gone regarding the cause of the disease, although his findings in this case are extremely interesting. I will say, in justification of others who have examined these cases, that the attempt has been made to examine every single organ of the body, and no changes have been found in the adrenals, thymus or pituitary gland. I think the proper view to take of the disease is that in these children the defect in the nervous system is such that the highest nerve elements are only equipped for a certain and a very limited function. In other words, that they are so started in life that they can only perform their function properly for a number of months and then give out, and, in consequence of this, undergo degeneration. I can not conceive that any family disease should be due to toxic causes and nothing else.

Visceral Angioneuroses

DR. S. SOLIS COHEN, Philadelphia: I have made previous communications on the subject of vasomotor ataxia (1892-1894-1896-1898). The condition is by no means rare, and is marked in certain families, especially in those exhibiting her-

editary tendency to disorders of metabolism, gout, diabetes, etc. It exists in some persons without causing any inconvenience. When, however, disease of any kind or from any cause arises in such persons, their constitutional peculiarities modify the symptomatology. An incautious observer, or one who does not recognize the significance of the vasomotor phenomena, may easily be led astray. This is especially the case in maladies attended with hemorrhage—whether slight or profuse—with cardiac disturbance, with headache, with painful crises or with serous discharges. The dependence of certain asthmatic paroxysms on what may be termed bronchial urticaria was emphasized in my previous communications and was well known before. Less familiar are the angioneurotic edemas of the base of the tongue and of the larynx, which cause suffocative paroxysms and may threaten death. Still rarer in literature and in practice is the recognition of angioneurotic conditions of the gastroenteric tract, the liver and the kidney. Certain utero-ovarian symptoms may by analogy be ascribed to similar processes, and there is no reason for excluding any viscus or tissue supplied with vessels. Considerable doubt and difficulty arises when cerebral symptoms are manifested. I have seen two cases in which operations for appendicitis were done because of painful abdominal crises of angioneurotic origin, and normal appendices were found. Evidence from morbid anatomy supporting the diagnosis of visceral angioneurosis is, from the nature of the process, practically unattainable; except negatively in the rare instances of surgery and the still rarer instances which can be followed throughout life and after death. Organic disease or deformity may coexist with angioneurotic disorder, as exemplified by one of my cases in which malposition of the kidney was responsible for some of the symptoms, and these, together with general nutrition, were relieved by successful operation. Furthermore, it is my conviction, from cases observed over prolonged periods, that actual disease of the vessels (angiosclerosis) may eventually be set up, pseudoangina, for example, becoming veritable angina. A number of cases were seen in which Graves' syndrome developed under observation, from a basis of slight vasomotor ataxia, and one in which an incomplete Raynaud's syndrome similarly developed. A notable case is one which began with uremic symptoms, including suppression, and in which the patient exhibits no evidence of nephritis but has passed through and recovered from the full syndrome.

DISCUSSION

DR. WILLIAM OSLER, Oxford, England: Largely through Dr. Cohen's stimulation we have of late years gained a good deal of information regarding these angioneurotic edemas. The group which is associated with skin lesions is most important to us practically, because undoubtedly the same lesions may occur in the abdominal organs, particularly the stomach and intestines, with severe symptoms, as vomiting, nausea, pain, and all the features of a severe attack of colic. Such features may occur owing to changes in the walls of the stomach or intestines the exact counterpart of those changes which occur in the skin. Surgeons know this. They have operated in a number of cases, supposing the patient had appendicitis, and the localized edema in the stomach and intestines has been seen—an edema which is exactly like angioneurotic edema. This is a very interesting group of cases which may or may not be associated with skin lesions. There are cases in children undoubtedly in which these features have occurred for years and years before any skin lesion has occurred. I saw only a few months ago a case that was about to go to operation for supposed gallstones, and fortunately just a little before my visit there came out a crop of urticaria and one characteristic patch of angioneurotic edema. Of course the patient was not operated on. It turned out that from childhood the patient had had attacks of colic, some of which had been associated with these cutaneous outbreaks. Another group that we may recognize is that which is associated with arteriosclerosis and spasm of the vessels of the abdomen. I think these cases that we call angina abdominis, cases with symptoms like angina pectoris, in all probability are due to spasm of the visceral vessels.

(*To be continued*)

AMERICAN THERAPEUTIC SOCIETY

Tenth Annual Meeting, held at New Haven, Conn., May 6-8, 1909

The President, DR. FREDERIC H. GERRISH, Portland, Maine, in the Chair

The address of welcome was delivered by Arthur T. Hadley, LL.D., president of Yale University, and the response by Dr. Thomas E. Satterthwaite, New York.

The report of the standing committee on therapeutic research, which was read by the secretary of the committee, Dr. H. C. Wood, Jr., Philadelphia, was on "The Quality of Fluidextract of Ergot at Present on the Market."

The obituary of Dr. Robert Reyburn, president of the society, 1906 to 1907, written by Dr. H. H. Barker, was read by the secretary, Dr. Noble P. Barnes, Washington, D. C.

Officers Elected

The officers elected were given in THE JOURNAL, May 15, p. 1591.

President's Address: The Therapeutic Value of Hypnotic Suggestion

DR. F. H. GERRISH, Portland, Maine: This subject has been surrounded with much entirely unnecessary mystery, and there has been a great deal of confusion in regard to it, not only among the public at large, but also in the minds of physicians. There can be no doubt, however, that it has a legitimate field in medicine, and when I was in general practice I made use of it for many years, with satisfactory results in a number of cases. The methods of applying this mode of treatment can be easily acquired, and it is a mistaken notion that it requires any special qualifications on the part of the operator for its successful employment.

The Standardization of Materia Medica Products

DR. F. E. STEWART, Germantown, Pa.: This subject embraces a much wider scope than is usually realized. It is impossible to carry out any systematic plan of standardization without considering the matter from the broadest possible point of view, and I believe that the present conditions call for the establishment of a strong central committee, board of control or bureau of materia medica (call it what you will), representative in character, which should have as its functions the cooperative classification and standardization of the newer materia medica, the censorship of advertising, the promotion of professional and commercial interests, and the protection of the public from dishonest commercial exploitation.

SYMPOSIUM ON DIABETES

Experience with Oatmeal in Diabetes

DR. ALFRED C. CROFTON, Chicago: v. Noorden's adoption of the oatmeal diet treatment was purely empirical, and even up to the present there is no definite knowledge as to the mode of action of this agent. Authorities differ as to its value, but there is now at command considerable evidence that it is more or less useful. I have experimented with it to a considerable extent, and have found that, if cases are properly selected, the employment of the oatmeal diet is attended with fairly good results.

Drugs Useful in the Treatment of Diabetes

DR. D. O. LEECH, Washington, D. C.: While I believe, with many others, that no drug is curative, there are a few which act as palliatives, and in some selected cases control, to a large degree, the output of sugar, render the patient fairly comfortable and prolong his life. Opium and its derivatives, notably codein sulphate, hold first place in the opinion of many practitioners, while many consider alkalies as important as opium.

Other drugs that are worthy of mention are gold and arsenic bromid, especially in combination with tryptic and amyloptic ferments, the salicylates, particularly in the case of children, calcium as a prophylactic against boils and carbuncles, potassium permanganate, potassium iodid and emul-

sions of mixed fats. In cases believed to be due to ptomain poisoning, mercuric chlorid has sometimes been used with good effect. We can expect no beneficial effects from drugs, however, without constant and careful attention to the diet.

Surgical Features Relating to the Effect of Gallstones; and the Question of Operation in the Presence of Diabetes

Dr. Robert T. Morris, New York: There are two special objections to operating on individuals with diabetes: (1) The phagocytes do not properly perform their protective function; (2) repair is not carried on well, because the reparative cells are disabled. The reason for this is on account of the cells being deprived of the water essential to their activity by the hygroscopic action of the sugar in the circulation. It has been observed that when gangrene appears in a case of diabetes which has developed rapidly, the process is likely to go on. On the other hand, in a patient who has had diabetes for years, even if there has not been much reduction in the sugar, we can operate far more boldly. In cases of gallstone disease in which operation is indicated, there comes up the question of comparative danger. Is the greater danger to be apprehended from the operation or from the continuance of the condition without surgical interference? In certain cases the formation of gallstones would appear to precipitate diabetes; and so of other sources of continued irritation. Glycosuria, like cough, is a symptom, not a disease, and in cases in which there is no such evident cause, as the changes accompanying arteriosclerosis, a careful investigation should always be made for the purpose of finding out some possible peripheral cause.

The Treatment of Diabetes as an Infectious Disease

Dr. Alfred King, Portland, Maine: By using a sterile solution of sodium citrate and chlorid to prevent coagulation, I have obtained active growing culture of the yeast fungus, *Saccharomyces cerevisiæ*, from a single drop of blood taken from the aseptic finger-tip of every diabetic patient I have been able to find in the last two months. The resisting power of the diabetic to this fungus was determined by Wright's method of taking the opsonic index. The examination of sixteen patients showed three things: (1) The existence of innumerable yeast fungi in the blood of each; (2) a disturbed power of resistance to this organism; (3) that the opsonic index registers a fair indication of the general physical condition of each patient. The indications for treatment are to restore the lowered power of resistance, destroy or remove that cause, and prevent, relieve or remove the complications which may arise. The lowered resistance may be removed by the use of vaccines and the careful regulation of the diet. So far, I have been able to study the action of the vaccine treatment in but six cases, and that for less than two months, but the results would appear to be fairly satisfactory. I am aware that I have not proceeded far in my investigation, but hope that I have gone far enough to interest other investigators in the subject.

Discussion on Diabetes

Dr. J. Blake White, New York: I have seen some surprising results from guaiacol benzoate, as recommended by Piatkowski, and among the effects observed have been increased appetite and improved digestion and assimilation, with perceptible stimulation of the nerve centers.

Dr. C. E. de M. Sajous, Philadelphia: Division of the splanchnic, which contains the nerves going to the adrenals, has been shown to affect the sugar in the urine. Now, the adrenals are governed by the sympathetic system, and it would appear that the pituitary body is actually the center for this. I ask, therefore, that investigators shall take the adrenals into consideration, for in this way, it seems to me, we may be able to find out the secret of this disease.

Dr. William H. Porter, New York: I have never ventured to carry out the oatmeal treatment, as I have feared that my patients would starve under it.

Dr. A. Croftan, Chicago: I am entirely in accord with the view that diabetes is apparently due to a variety of different causes. Practically, however, it is a disorder of the carbohydrate metabolism. Too much reliance must not be placed on the supposed efficacy of drugs, as there is no disease so fluctuating in all its manifestations. Dr. King's contribution is new and interesting, but his view of diabetes can not be accepted without further proof.

Dr. R. J. Morris, New York: I know of no reason why there should not be a dozen causes for irritation of the floor of the fourth ventricle, such as arteriosclerosis, injury or eyestrain. As Dr. Sajous has suggested, all these causes may act by affecting the pituitary body, which he believes controls the sympathetic system.

(*To be continued*)

LOUISIANA STATE MEDICAL SOCIETY

Thirtieth Annual Meeting, held at New Orleans, May 4-6, 1909

(*Continued from page 1637*)

The Treatment of Syphilis by Mercurial Inhalations in a Hot Room

Dr. S. Schiro, New Orleans: The method of treating syphilis by mercurial inhalations, known also as Campailla's method, consists in mercurial fumigation combined with diaphoresis in a small heated room, properly ventilated, and having enough air capacity to allow the patient to breathe comfortably. In the forty-four patients thus treated up to the present time I have always obtained favorable results, and draw the following conclusions:

1. Mercurial inhalations in dry heat yield more rapid, immediate and constant results in treating syphilis, of any stage, than the other methods in use; hence its special indication in severe or impending cases of syphilis.
2. For the same reason of its intensity, this method confers on the syphilitic for a longer period an intermission of apparent recovery, which is a favorable condition, especially in pregnant women, who may with much more probability have a normal delivery, greatly reducing infant mortality.
3. It is preferable for the sake of the comfort of the patients, for it saves the digestive apparatus and is not so troublesome as the inunctions or other methods.
4. It is harmless, except in cases in which it is contraindicated by disorders in the respiratory, circulatory and renal apparatus or by old age of the patient.
5. It does not interfere with the patient's occupation and keeps him out of trouble in eluding social or family criticism.
6. It is the most efficient aid to social prophylaxis, as the syphilitic subjects, under this treatment, quickly become noncontagious, or at least much less dangerous to others.
7. Compared with the various methods in use, this method, as it is practiced to-day in the hot room, meets better the two most important points in dealing with syphilis.

The Hyperacid Stomach

Dr. S. K. Simon, New Orleans: The first hydrochloric acid secreted is neutralized in great part by the alkaline mucus present on the gastric surface. The proteid element of the food takes up the further supply, but there is always a surplus during ordinary digestion accumulating toward the end of the process. This is what causes trouble for the stomach when there is no longer a free supply of mucus present to neutralize it and to prevent irritation of the delicate gastric nerve endings. In a clinical way, therefore, hyperacidity is strictly a relative term; the actual gross percentage of hydrochloric acid in the gastric juice may vary, depending on many factors, but the secretion of each individual gland in the stomach remains constant. The acid *per se* does not cause symptoms, but when these occur there is a relative and appreciable decrease of the mucus coating to the stomach wall. The diet should be bland. Olive oil probably acts by protecting the walls of the stomach and bismuth probably acts in the same way. The drug that has given me most satisfaction in the treatment of this condition is nitrate of silver. I believe we should drop the misleading terms of "hyperchlorhydria" and "hyperacidity," and substitute the name "hyperacid stomach."

Epilepsy and Its Treatment

Dr. P. E. Archinard, New Orleans: Early diagnosis is the main anchor of the successful treatment, and that diagnosis rests on a suspicion that all spasmodic affections, be they general or partial, tonic or clonic, accompanied at some stage with the least loss of consciousness, is or may become epilepsy, and must be treated accordingly. This treatment we find in the

judicious employment of the bromids, especially potassium bromid.

The use of bromid in moderation can be continued indefinitely, and is much less hurtful to mental and other developments than the attacks it is given to prevent. Potassium bromid is innocuous and cheaper than any of the others. In a large practice extending over a good many years, and including an unusually large number of epileptics, I have followed the rule of giving this class of patients bromids for months, and in some instances for years, and I have felt at all times gratified at the results. I have never seen any untoward effects.

Substitution of Muscle for Tendo Achilles

DR. A. C. KING, New Orleans: E. D., male, aged 5, while wading in a filthy gutter, stepped on a broken bottle in such a way as completely to sever the right tendo Achilles, about three-quarters of an inch above its insertion into the os calcis. Under thorough aseptic precautions the ends of the divided tendon were united with No. 2 chromic gut, but suppuration followed, resulting in the destruction of about two and a half inches of the tendon. After healing had occurred an incision was made extending from the heel half way up the leg, search was carefully made for a possible fibrous reproduction which might in time give a useful foot. Nothing was found, and all efforts at approximation failed. The gastrocnemius was split on one edge, then a transverse cut was made, thus freeing enough muscle tissue to bridge over the defect. The muscle was turned down in such manner as to fill in the gap, and the lower end was sutured to the heel end of the tendon. The wound was closed without drainage, dressings and plaster were applied with the foot in extension. The final result is all that could be desired.

Appendicostomy, Appendicotomy and Appendix Transplantation

DR. RANDALL HUNT, Shreveport: Patient was a white male, married, aged 38, weight 140 pounds. Four years ago he had an attack of malaria lasting two weeks. A month later symptoms of colitis supervened of a continuous character, except when rectal irrigation was used, and immediately recurring on its abandonment. Examination of the stools showed ameba. He was operated on Feb. 18, 1909. The technic used was that described by C. B. Keetley in the *Lancet*, Jan. 2, 1909. The appendix was opened forty-eight hours after the operation. A catheter was introduced into the cecum daily, and the bowel was washed with two gallons of a warm 1 to 5,000 solution of quinin hydrochlorid. Though the bowel movements varied from four to eight in twenty-four hours prior to operation, irrigation promptly reduced this number to one movement a day. After thirty days' treatment re-examination of the feces still demonstrated the existence of amebas and the strength of the solution was increased to 1 to 1,000. Very few amebas were found, however, and as the patient has made a gain of twelve pounds in body weight it appears perfectly logical to predict a complete recovery in the near future.

OHIO STATE MEDICAL ASSOCIATION

Sixty-fourth Annual Meeting, held at Cincinnati, May 5-7, 1909

(Continued from page 1688)

Treatment of Clubfoot in Infancy

DR. ALBERT H. FREIBERG, Cincinnati: The crux of the problem lies in securing a satisfactory over-correction of the deformity by overcoming the resistance of the soft parts which holds the bones in their abnormal relationship to one another. The technic of retention in this over-corrected position is no longer a moot point, if only the before-mentioned first requisite be attained. I find, however, that there is frequent failure to realize the importance of the third requisite for accomplishing a real and therefore permanent cure, namely, that having over-corrected the deformity, mere retention in the over-corrected position will not bring about a cure, be it ever so long maintained. There must be added the influence of function, of weight-bearing. Since this factor is not available until the tenth or twelfth month, it is unnecessary to maintain over-correction by plaster-of-paris until a period shortly before this. Over-correction can be most easily accomplished in the new-born infant. If we ignore the position of the heel, that is the element of equinus, in the untreated clubfoot, it will be found possible, by gentle and painless manipulation, to bring the forefoot into the axis of the leg, thus overcoming the adducted position of the forefoot. The forefoot and leg are now in a straight line, and can easily be held in this position by means of a simple splint and a roller bandage. It is intended that the splint shall be removed by the mother morning and evening for the purpose of rubbing and bathing, and particularly for manipulation of the foot in the manner of over-correction. Complete correction is then undertaken as close as possible to the beginning of walking. It is now no longer an infantile clubfoot, but is to be managed precisely like the clubfoot of an older child, which I do not discuss in this paper.

The Genesis of the Non-Infectious Chronic Diseases of Middle and Later Life from Early Microbic Infection

DR. J. B. BALLINGER, Bradford: On the basis of a common origin from microbic infection of the intestinal tract and modified by the kind of infection and mode of living chiefly, a class of evolutionary diseases probably exists, many of which produce changes characteristic of old age and organic disabilities which limit individual life. In this class, with others, are lithemia, various forms of rheumatism, arteriosclerosis, some cases of endocarditis, myocarditis, and chronic nephritis, apoplexy and diabetes. That intestinal infections occur early in life, even in infancy, scarcely admits of doubt. Reactions in the form of colic, jaundice, diarrhea and fever, occurring in infants but a few days old sufficiently attest this fact. Once established, infections are often permanent. This statement is not only supported by clinical facts, but has lately been strengthened by the discovery of bacillus-carriers. A degree of immunity to some bacteria evidently becomes established, but that their influence on the organism entirely disappears therewith admits of serious doubt. Disease and death are the measure of the victory of the microbic and parasitic forces of disorganization in their persistent warfare against an individual life, but it is especially when early in life an intestinal invasion has been followed by a permanent colitis and constipation, and the alimentary canal thereby converted into a bacterial culture tube, that the development of disease becomes rapid and a well-defined clinical history apparent. These fundamental principles of etiology give increased scope and definite aim to preventive medicine, and add hopefulness of further mitigation of disease and increase of longevity as the reward of continued efforts at therapeutics and sanitation.

Mind and Medicine

DR. J. S. RARDIN, Portsmouth: As the result of renewed activity recently in the field of psychic therapeutics we hear of various cults, such as christian science, the new thought, mental culture, and more recently the Emmanuel movement, and we are led to believe that the psychic factor in treatment has been neglected by the profession. It is in nervous disorders that mental treatment has its most valuable field of usefulness—the neuroses, psychasthenia, neurasthenia, hysteria, melancholia, hypochondria, mania, etc. The trend of modern civilization is to an increase of nervous disorders. Rapid transit, fierce competition in business, supremacy of great corporations, manipulation of intricate machinery, intense artificial light, all engross the nervous system, impairing its stability. Alcoholic drinks play an important part in causing nervousness, and venereal diseases and heredity are also important factors in the increase of nervous disorders. Suggestion is the basis of psychic treatment. The patient must be re-educated and the disordered mind directed in health channels. Suggestion acts through the conscious mind on the unconscious. Every dose of medicine given is more or less a suggestion, and sometimes the more valuable part of the dose.

The placebo is just as legitimate and at times more effective than potent remedies for it inspires hope and contentment of mind, without which the unconscious functions do not act properly. In the absolute confidence of the patient we hold the key to successful treatment, and without that confidence medicine loses much of its potency. Persuasion should be used and autosuggestion practiced. The tendency of the modern cults is to combine religion and medicine. I think we should be very careful of such an alliance. Tactful words of counsel and prayer will often soothe a nervous, wakeful patient into sweetest sleep.

Choked Disc, with Special Reference to Decompressing Trephining

Dr. A. R. Baker, Cleveland: Every patient with choked disc, syphilitic or otherwise, should first be treated vigorously with iodin or mercury. If not responding favorably, the question of operative interference must be seriously considered to prevent blindness. Among operative measures to be pursued are: (a) Incision of optic nerve sheath; (b) lumbar puncture; (c) decompressing operation.

Etiology of Senile Cataract

Dr. Charles Lukens, Toledo: The essential cause of senile cataract is disturbed nutrition of the crystalline lens. The function of the capsule is a protecting and regulating one. The nutrition of the lens is obtained by osmosis from surrounding media. If these media become so modified by certain toxins, exudates or altered composition that the lens is no longer able to get proper nutrition, this altered nutrition may produce opacity. Chorioiditis is the result of prolonged asthenopia, which may be from several causes, and probably accounts for more cases of cataract than any other one thing. The cause of many cases is obscure, and no single etiologic factor can account for all.

Report of a Case of Hodgkin's Disease with Recurrent Fever

Dr. John Phillips, Cleveland: The patient in the case reported was admitted to Lakeside Hospital because of swelling of cervical glands. Some of the glands were removed and microscopic changes were found described by Reed and Longcope as characteristic of this disease. Under treatment with arsenic, the remaining glands became smaller and smaller and the patient was discharged, only to be readmitted one year later with marked enlargement of glands in the neck and axillæ. Under treatment with arsenic they again nearly disappeared. The patient was admitted again with the enlargement of all the superficial glands and evidences of compression from enlargement of the retroperitoneal group. The unusual condition noted, both in the record and third admission to the hospital, was the alternation periods of pyrexia and apyrexia.

(*To be continued*)

KANSAS MEDICAL SOCIETY

Forty-third Annual Session, held at Emporia, May 5-7, 1909

The council and house of delegates had their first meeting Tuesday, May 4. The financial report showed that the society is on a solid financial basis. The scientific session was opened Wednesday morning at 10 a. m., with an address of welcome by Mayor John H. Glotfelter, of Emporia. A response on behalf of the society was delivered by Dr. O. J. Furst, of Peabody.

President's Address: Tuberculosis

Dr. C. C. Goddard, Leavenworth, spoke of the efforts being made to stamp out this dread disease.

Almost one whole day of the session was devoted to papers and discussions relative to some phase of tuberculosis.

Changes in Councilor Districts and By-Laws

On Friday, May 7, the house of delegates reconvened. Several amendments to the constitution and by-laws were offered. One provided for the election of twelve councilors instead of eight as the constitution now provides. This will lie over one year and be voted on at the next annual meeting.

The by-laws were amended by dividing the state into twelve councilor districts in place of eight, and according to the constitution, as only eight councilors could be elected, four deputy councilors were appointed to serve for one year. The by-laws were also amended that the council and house of delegates could hold their first meeting on the morning of the first day of the session, and further amended that the officers of the society could be elected on the second day of the session.

Election of Officers

The officers elected were mentioned in The Journal, May 15, p. 1587. Topeka was selected as the next place of meeting.

Attendance and Entertainments

The attendance at this meeting was much larger than that of last year. Everything was done by the local committee of the society for the entertainment and comfort of the visiting physicians and their wives.

On Wednesday evening a smoker was given at the Whitley Opera-House. On Thursday morning an auto ride was given to the various points of interest in the city. A reception by the ladies of Emporia was given to the visiting ladies at the Elks club room on Thursday afternoon. A banquet was given Thursday evening, about three hundred plates being laid.

Contribution to the Carroll Fund

The appeal of the American Medical Association for the relief of the widow of Major Carroll, who lost his life as a result of work done while investigating the cause of yellow fever, was presented to the society and volunteer contributions were made, to the amount of $55.50, which was forwarded to Major M. W. Ireland, to be added to this benefit fund.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND

One Hundred and Eleventh Annual Meeting, held in Baltimore, May 13-15, 1909

(Concluded from page 1691)

The Specific Chemotherapy of Protozoal Diseases

Dr. Simon Flexner, New York, dealt with the new science of experimental therapeutics, *i. e.*, the effects of remedies in diseases artificially produced; its present status and possibilities. Dr. Welch said it was a good omen that the first paper read in the new building should have been one on a scientific subject and by a noted scientist.

The Variations of Nephrotomy Incisions from the Standpoint of Anatomic Study

Dr. Max Broedel, of Johns Hopkins Hospital: The key to the mode of operation is the embryology of the kidney. Rotation is the most important of all factors. It begins at the third week of intrauterine life, and usually reaches 100°, sometimes 130°. The position of the kidney determines the blood supply and the type of vascularization. The posterior incision into the organ is applicable in about three-fourths of all cases.

The Bacterial Content of the Feces with Experimental Observations Concerning the Effect of Various Intestinal Antiseptics

Drs. Julius Friedenwald and J. Frederick Leitz concluded their paper as follows: 1. Regulation of diet, together with the evacuation of the bowels, is the most effectual method that we have at hand for reducing the excessively high bacterial contents of the intestines. 2. Betanaphthol and bismuth salicylate appear to be our most effectual intestinal antiseptics in normal individuals, while aspirin and ichthalbin effect slight reduction and salol gives no results whatever. 3. The results produced by intestinal antiseptics in patients suffering with gastrointestinal disturbances do not seem to be marked, whereas the best results are obtained by regulation of the diet.

The Early Diagnosis of Brain Tumors

Dr. Harvey Cushing: Brain tumors are very frequent. They may be removed without general anesthesia, only with

a hypodermic of morphin. The brain and dura being insensible, stimulation with the electric current is very helpful in diagnosis; so is the study of the eye grounds, the ophthalmologist often having the opportunity to make the first diagnosis. Choked disc may produce sudden blindness; it is the most important of the ocular manifestations of tumors. Inversion of color fields is not pathognomonic of hysteria; it occurs frequently in tumors. Syphilitic tumors are not removable by antisyphilitic remedies, but it is well to remember there may be some relief by their use in non-syphilitic tumors. I have operated on 40 or 50 brain tumors. Many cases of brain tumor, especially in hospitals, are mistaken for hysteria, syphilis and insanity.

The Widened Scope of Psychiatry

DR. C. B. FARRAR: There are two reasons for the activity of psychiatry in Baltimore, (1) the Phipps' clinic, (2) the activity of the lunacy commission. Mystery has lingered over this subject to the present. The word *schlenstör* is still used in Germany; diseases of the mind are still diseases of the soul. Yet our mental states are subject only to the laws that apply to the body. The last of the spiritualist physicians died in 1843 and in 1845. The somatic school triumphed with the advent of Griesinger. Psychiatry is neglected in the schools, and by the boards of examiners. In 1901 Germany required examination in it of all candidates. Every physician comes in contact with mental states. There is a classification mania; real classification of mental disturbances is impossible—individualism is essential. There are as many mental diseases as patients. We have to consider the personality of the individual and the acquired symptoms.

Family Epidemic of Acute Trichiniasis

DR. JOSE L. HIRSH: This epidemic came from eating uncooked ham. There is a large popular consumption of uncooked pork and it must be recognized that meat containing trichinæ can be purchased in the markets. The attack occurred in a family of 8, 5 of whom ate the diseased ham and became affected. The ham was purchased January 31 and the disease appeared between February 7 and 12. The symptoms were edema of eyelids, abdominal cramps, nausea and vomiting, constipation, muscular soreness, urticaria, high temperature, eosinophilia constant from 18 to 45 per cent. There were no chills. The urine and stools were negative.

Fagopyrismus (Buckwheat Poisoning)

DR. HARRY LEE SMITH: The affection occurs in animals, but there is no record of it in man. The case here reported was that of a white man in whom the susceptibility was first observed at the age of 9, after eating buckwheat cakes. The symptoms as observed experimentally (application of buckwheat to scarified surface, or internal use) were itching, heat, suffusion of face, conjunctivæ, neck and arms, followed by desquamation, nausea, sense of tightness in chest, rapid pulse, giddiness, labored action of heart. The immediate cause of the symptoms is unknown.

Incised Wounds of Liver: Report of Case Complicated by Evisceration

DR. ALEXIUS MCGLANNAN: Such wounds are uncommon, and their mortality is high. The chief danger is hemorrhage, and the most important treatment is to check it. Best results are attained when operation is done within six hours. The patient in this case was a white man who had a saw wound of the abdomen. The stomach and colon protruded and there was severe shock. There was an incised wound extending across the abdomen seven inches. The ribs were divided and a wound in the liver was exposed; the epigastric vessels were ligated and the liver wound closed with overlapping catgut sutures just tight enough to control bleeding. Recovery followed.

Gynecology and Obstetrics in General Practice

DR. L. A. GRIFFITH spoke from the standpoint of the country physician. He laid particular stress on three points: (1) Asepsis in labor; (2) early recognition of cancer of the uterus; (3) the importance of a better class of midwives.

DR. J. J. CARROLL added the importance of attention to the eyes of the new-born. There were 29.2 per cent. of admission of cases due to ophthalmia neonatorum at the hospital for the blind. Of these, 76.8 per cent. of the mothers were attended by midwives and the remainder by physicians, showing that not midwives alone are to blame.

Life History of Uterine Myomata

DR. THOMAS S. CULLEN: The cause of uterine myomata is still in doubt; there is no relation to the blood vessels. Position is important. There may be only pressure, but, if the myoma impinges on the mucosa, there will be hemorrhage. Torsion (in subperitoneal form) and suppuration are occasional complications. The blood supply may be derived from the omentum or bladder, or the myoma may be entirely free. It may accompany carcinoma both of body (25 cases) and cervix (18 cases). Hyaline degeneration is nearly invariable; cystic degeneration is common. Sarcoma and myoma occurred together in seventeen cases. In a large proportion there were symptoms of irritation; many were unaware of its existence. I do not think it necessary to remove myoma in all cases. When there is no discomfort, no trouble, I leave it alone, requiring the patient to report two or three times a year.

Other Papers Read and Apparatus, Etc., Exhibited

"Methods of Skin Transplanting," by Dr. J. S. Davis; "Direct Laryngoscopy" (with exhibition of instruments), by Dr. R. H. Johnston; "Responsibility of Physicians in Campaign Against Tuberculosis," by Dr. John Girawood. Dr. G. Timberlake demonstrated the *Spirochæta pallida* by dark-field illumination, and Dr. Hugh Young exhibited a number of instruments of his own invention for the removal of tumors from the bladder by the help of electric illumination.

Miscellany

Elbert Hubbard's Misstatements on Vaccination

To the Editor:—In December, 1906, Elbert Hubbard took occasion in the "Philistine" to attack the theory and practice of vaccination. I wrote to him commenting on his misstatements, but received no reply; neither did Mr. Hubbard in his journal correct them. In view of the fact that he is still writing articles in opposition to vaccination it may be well that material for refuting his assertions should be put in the hands of those members of the profession who have not paid special attention to the subject, who may nevertheless be called upon to defend vaccination against such attacks.

After two introductory paragraphs, I said:

Let me call your attention to what I regard as the errors in your article.

> 1. "Dr. Jenner made investigation and found that no person who had cowpox had contracted smallpox, or, more properly speaking, he could not discover that any person who had had cowpox ever had smallpox.
>
> "It was also the belief that cross-eyed persons and hunchbacks were immune from smallpox, but Dr. Jenner says nothing about this!"—Elbert Hubbard.

COMMENT. For seventy-five years previous to the discovery of vaccination, people in England willingly had themselves inoculated with smallpox in order that they might secure the advantage of a mild attack and thus protect themselves against a severe attack of "natural smallpox," which almost every one contracted. It was believed that almost every one had to pass through an attack of smallpox in the course of his life, just as at the present time almost every one passes through an attack of measles, and statistics bore out this opinion. Therefore, your subsequent statement—in reference to Jenner's declaring that he had inoculated his cowpox

friends with genuine smallpox—that "it is much more likely that in his excess of zeal, Jenner lied than that he deliberately ran the risk of laying himself open to the charge of committing murder," is an absolutely untrue and unwarranted statement.

2. "Professor Waterhouse, of Harvard University, vaccinated his children, and then to prove his faith took them to a house where there was smallpox. Afterward it was admitted that he (Dr. Waterhouse) only took them into the yard or past the house where the patient lay."—Elbert Hubbard.

Comment. I do not know your authority for this statement. The facts are that Dr. Waterhouse after vaccinating his children, sent them into the smallpox hospital, which was under the charge of Dr. Aspinwall, who subsequently inoculated them with smallpox without effect. Apropos of inoculation, Thomas Jefferson, who was so much interested in the subject of vaccination, insisted on inoculation as a subsequent test in persons who were early vaccinated in Virginia.

3. "At the present time out of 1,200 deaths, but one is caused by smallpox. The danger of smallpox is infinitesimal where people pay proper attention to sanitation, but the risks from vaccination are considerable."—Elbert Hubbard.

Comment. Before the days of vaccination, smallpox caused on an average one-thirteenth of the total number of deaths in England. The enormous difference between one death in 13 in the prevaccination period and one death in 1,200 at the present time constitutes certainly no argument against vaccination, but a pretty strong one in favor thereof. Improvement in sanitary conditions, while doubtless accountable for some decrease in smallpox, is entirely inadequate to explain the striking decline in the incidence and mortality from this disease.

It was shown before the Royal Commission of Vaccination, and the figures are unchallenged, that during a long period in England in which smallpox declined 72 per cent., the mortality from measles had fallen only 9 per cent. and the death rate from whooping-cough a little more than 1 per cent. The diminution in the mortality from scarlet fever has only become apparent at all within comparatively recent years. You write, "the conditions that breed consumption and typhoid fever are favorable to smallpox." Your statement is untrue. Typhoid fever is caused almost exclusively by polluted water supply, and consumption is favored by conditions which lower the general health, but its transmission can not in any sense be compared with smallpox. Smallpox must be classed with measles, scarlet fever, whooping-cough, etc.—with diseases which are extremely contagious and are apt to be transmitted by the most casual contact with the person suffering therefrom. In other words, smallpox is influenced by personal infection rather than by any definite vices of sanitation.

There is almost a universal susceptibility of persons to smallpox and to measles. In the days before vaccination it was generally agreed that about 5 per cent. of the population was insusceptible to smallpox either through the air or by inoculation. My personal experience has been such that I never have seen an unvaccinated person exposed to smallpox fail to take the disease, with the exception of three infants born in the hospital of mothers suffering from smallpox. In every other case, and the figures would reach hundreds, the exposed person has contracted the disease. On the other hand, I have never seen a recently successfully vaccinated person, or one remotely vaccinated with subsequent revaccinations, fail to be protected in the presence of smallpox. During the years 1901 to 1904 we conducted in small classes 700 students of the different medical colleges in the city through the wards of our hospital. These wards were intensely infected, as at one time there were 304 patients suffering from smallpox. It was required that all students should be revaccinated whether they bore scars or not. Of this entire number but one man contracted the disease and, on examination and interrogation, it was found that he had never been successfully vaccinated and bore no mark on his arm.

In the Muncipal Hospital of Philadelphia, during a period of 34 years, in which time over 9,000 cases of smallpox have been treated, we have not had a physician, a nurse, or an attendant, who had been successfully vaccinated or revaccinated prior to going on duty, contract the disease. Physicians and nurses have no such immunity against other infectious diseases as against smallpox. The deaths from smallpox of medical men (who constitute a class particularly well vaccinated) are 13 per 1,000,000 as against 73 per 1,000,000 of the general population in England. In scarlet fever, on the other hand, against which physicians have no special protection, the figures are reversed; 59 medical men per 1,000,000 die of scarlet fever as against 16 per 1,000,000 of the general population.

4. "Fully one-half of all physicians now know that vaccination is a fallacy. To-day the best doctors decline to be vaccinated."—Elbert Hubbard.

Comment. How can you commit yourself in writing to such a statement? Practically all the eminent practicing physicians of this country as well as abroad are in favor of vaccination. Indeed, on no other therapeutic procedure is there such a unanimity of opinion in the profession. I do not know of the head of an infectious disease hospital anywhere in the world who is opposed to vaccination, and these men are the best qualified to form an opinion. There may be a small number of physicians in different communities who are opposed to vaccination. It is impossible, however, that such opposition should rest on proof of the non-efficacy of vaccination as a protection against smallpox.

No one familiar with the subject at the present day makes the claim that a single vaccination protects against smallpox for life, although in Jenner's time this was thought to be the case. It would be too much to expect, for one attack of smallpox does not invariably protect against a second at a later period of life. But what is claimed is that vaccination properly performed and repeated once or twice in the course of a lifetime does give an almost absolute assurance of security against the dread smallpox.

If physicians, nurses, and attendants, who are thoroughly vaccinated, can live in perfect security against this disease though coming into daily contact with cases of smallpox, it should certainly be possible for persons living under more favorable circumstances to secure to themselves a like protection. Smallpox, as you suggest, is a comparatively rare disease at the present time in vaccinated countries. The same, however, is not true of countries in which vaccination is greatly neglected. In these countries smallpox still finds its thousands of victims. According to figures collected by the German Imperial Board of Health, there were 275,502 deaths from smallpox in five years from 1893 to 1898 in the Russian Empire, including Asiatic Russia; in Spain, with a population of ten and one-half millions, there were 23,881 deaths from smallpox during this period. Hungary had 12,241 deaths and Italy and Austria 11,000 deaths each. In Germany, however, where vaccination is well carried out and where the population is five times that of Spain, the total number of deaths from smallpox during the same five years was 287, and these were largely in persons of foreign birth who had not been subjected to the vaccination laws of the country.

There is only one sane ground for opposition to vaccination, and that is, that it is not devoid of some danger. But the danger is so slight in any individual instance that it is almost a negligible quantity. No human act is completely unattended with risk. Railroad travel, attendance at the theater, the taking of an anesthetic, etc., all necessitate the taking of a slight risk. Certain it is that there is no reason why we should not be willing to take a minimal risk to secure protection against a disease which was, until the introduction of vaccination, a devastating plague. I do not deny that accidents and injuries, chiefly wound infections, occasionally complicate vaccination, but nearly the whole of these are preventable when the fullest precautions are taken in the propagation and preservation of the lymph, the operation itself, and the care of the arm after vaccination. In the conclusions of the Royal Commission on Vaccination the following is stated: "It is to be hoped that our report will stimulate belief in the efficacy of vaccination, that it will remove some

misapprehension, and reassure some who take an exaggerated view of the risk connected with the operation, as well as lead to a more ready enforcement of the law by local authorities."

I am sending you under separate cover several pamphlets which I trust you will read. Furthermore, if you are sufficiently interested in this matter, I would advise that you read the conclusions of the Royal Commission on Vaccination, a committee composed of eminent men appointed by Queen Victoria. JAY F. SCHAMBERG, Philadelphia.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

DELAWARE: Dover and Wilmington, June 15 17 Sec, Dr Henry W Briggs, Wilmington

FLORIDA ECLECTIC DeFuniak Springs, June 10 Sec, Dr Hiram J Hampton, Tampa

ILLINOIS Coliseum Annex, Chicago, June 16 18 Sec, Dr. J A Egan, Springfield

IOWA Des Moines, June 1 3 and June 22 24; Iowa City, June 8 10 Sec, Dr. Louis A Thomas, Des Moines

KANSAS. Kansas City, June 10 Sec, Dr R. A Light, Chanute

MARYLAND: Baltimore, June 15 18 Sec, Dr J. M. Scott, Hagerstown. Homeopathic Baltimore, June 15 17 Sec, Dr Joseph S Garrison, 848 W North Ave

MICHIGAN: Ann Arbor, June 8 Sec, Dr B D Harlson, 504 Washington Arcade, Detroit

MINNESOTA Minneapolis, June 15 Sec, Dr W S Fullerton, St Paul

NEW HAMPSHIRE Concord, June 29-30 Regent, Mr H C Morrison

NEW JERSEY: State House, Trenton, June 15 16 Sec, Dr J W. Bennett, Long Branch

NEW YORK: Albany, June 22 25 Chief of Examinations Division, Mr Charles F Wheelock, Albany

NORTH CAROLINA Asheville, June 9 Sec, Dr B K Hays Oxford

OHIO Columbus, June 8 10 Sec, Dr George H Matson, State House, Columbus

PENNSYLVANIA Philadelphia and Pittsburg, June 22 25 Sec, Nathan C Schaeffer, Harrisburg

SOUTH CAROLINA Columbia, June 8 10 Sec, Dr H. H Wyman, Aiken

TEXAS: Cleburne, June 22 24 Sec, Dr M E Daniel, Honey Grove

VIRGINIA: Richmond, June 22 25 Sec, Dr R S Martin, Stuart

WYOMING. Laramie, June 23 25 Sec, Dr S B Miller

Florida Committee on Medical Education Report

At the session of the Florida Medical Association, held at Pensacola, April 7 9, the following report of the Committee on Medical Education was read by the chairman, Dr Edward N. Liell:

The intelligent treatment of diseases requires training and experience on the part of the practitioner of medicine A man is of value to the world, in his profession, only when his ability is such that he contributes something over and above the amount represented by his fees

The time is at hand when it must be insisted on that the man licensed to practice medicine shall be first of all well educated; and that he shall have been thoroughly grounded in the fundamental sciences on which all medical practice depends.

Low educational standards have heretofore been not only an injustice to the public but demoralizing to the profession. The public has been slow to appreciate the fact that its interests and its safety lay in good standards of medical education It has even been hostile at times to the reforms which the representatives of the leading medical societies have endeavored to bring about. This attitude of the public makes the practice of medicine the easiest field for the charlatan and the quack to enter.

High standards should be enforced in professional education. There should be not only legal regulation of medical licensing, but expert scrutiny of medical education and in the admission to practice.

Finally, in raising the standard of medical education, influence should be brought to bear towards securing a proper standardization of our medical schools and a just and equitable system of examining boards for the issuance of licenses to practice.

Louisiana Committee on Education Report

The Committee on Medical Education of the Louisiana State Medical Society of which Dr. L. G. LeBeuf is chairman, presented an extended report at the annual meeting of the society at New Orleans, May 4 to 6, 1909.

The growth and the standing of Tulane University Medical Department are dwelt on in the report and statistics given comparing this with other medical schools. The new buildings which at a cost of $275,110, have been erected and the great improvement of the teaching staff are alluded to A new surgical and gynecological department to Charity Hospital, the Delgado Memorial with 120 beds, adds to the clinical facilities of the school The average cost of teaching each student is shown to be $175 44, while each student contributes but $139 75 leaving a net cost of $35 69 for teaching each student which must be met from other sources. This school is highly commended by the committee for the progress made, but is urged to extend its course to include thirty weeks of actual work each year excluding holidays and examination week

In regard to Flint Medical College, while that college is commended for the adoption of higher standards and statistics are given showing its successes and failures at state board examinations it is also stated that the college was working against dreadful odds with little endowment, with practically no clinical advantages and with a most modest laboratory equipment Under these circumstances the committee was unable to understand how the school could do as well as it was doing Allusion was also made to the wild search for students by colored medical schools whereby students which failed at Flint were taken without condition at other colleges.

The committee suggests that instead of the several smaller colored schools now struggling against insurmountable odds, some one or two central locations should be selected where prejudice is not so extreme and all means and energy be concentrated in building up one or two large well-equipped universities which with ampler means, could obtain sufficient hospital advantages and better laboratory equipment. Medical education for colored students could then not only comply with the letter of the law but also with the requirements of modern medicine Negro education should be encouraged in medicine as the 9 000 000 negroes of the South have a right to have physicians of their own race treat them if they so desire But they also have the right to expect that such physicians shall have had a thorough training in high-grade medical colleges

Connecticut Homeopathic March Report

Dr Edwin C M Hall, secretary of the Connecticut Homeopathic Medical Examining Board, reports the written examination held at New Haven, March 9, 1909. The number of subjects examined in was 7, total number of questions asked, 70, percentage required to pass, 75 The total number of candidates examined was 2, both of whom passed. The following colleges were represented

PASSED		
College	Year Grad	Per Cent.
New York Homeopathic Medical College	(1899) 84; (1906)	87

Medical Economics

Business Partnerships in the Medical Profession

The Chicago Physicians' Club, at its March meeting, held a symposium on business partnerships in the medical profession, three speakers taking the lead in the discussion, their subjects being The Advantages of Business Cooperation and Business Partnerships," Division of Fees from the Surgeon's Standpoint" and the Equitable Arrangement of Fees from the Physician's Standpoint"

Dr Casey A Wood discussing the business partnership with special reference to office cooperation, advocated a combination of physicians devoting their time and energy to various specialties and forming a distinct business partnership. He attributed the rarity of such an arrangement to conservatism on the part of physicians and pointed out the fact that this kind of an arrangement is common in the legal profession. One probable obstacle in the way of such an arrangement was a lack of confidence in each other on the part of physicians, not so far as skill is concerned, but with reference to business relations.

There was nothing inherent in the study and practice of medicine that rationally explains this unnecessary and harmful distrust of each other that sometimes characterizes the members of the medical profession. The remedy lay in multiplied opportunities for better knowledge, both social and professional, of each other. Business partnerships in large centers and in small towns would greatly benefit not only the profession, but also the public, as it would increase mutual cooperation and give the public better service.

The material advantages of such partnerships, he said, were larger and better equipped offices and waiting rooms, common laboratories and libraries and better general equipment. The most obvious combination of this sort would be two internists, a general surgeon and a representative of each of the ordinary specialties. Another arrangement, which often works well, was an association of eye, ear, nose and throat specialists. The rapidly growing field of each of these departments was making it increasingly difficult for one man to cover all of them adequately. Another advantage was that many routine but necessary examinations could be made by assistants, thus saving time both to the physician and to the patient. Well-equipped laboratories and adequate libraries were easily obtained where half a dozen or more men were working together; properly equipped operating rooms, as well as competent bookkeepers, office attendants, assistants, etc., were also possible. Another advantage was the opportunity offered to each individual member of such a firm to take needed vacations and absences from work for the purpose of further study without feeling that his practice was being neglected. Any member of such a business association should have the advantage of the advice of another member at any time without extra charge to the patient, because the fee paid by the patient should give him the advantage of all the equipment, human or otherwise, in the entire office, and the charges should be sufficient to cover such a contingency in order to forestall any unfavorable criticism. The question of the division of profits should be left entirely to the members forming the partnership.

Dr. J. F. Percy, Galesburg, considered the much discussed question of division of fees. He said that the trouble with the fee-splitting proposition was that most of us were not sure when it departed from the fundamental principles of clean ethics, and that ethics of some sort were and always would be necessary to the human, civilized family. The larger part of the medical profession was opposed to such division. Those in favor of it were either willing to give or to take. Those willing to take were generally either young physicians unaware of the wrong they were committing and anxious to make as much as possible, or older practitioners who were willing to accept a part of the fee of the more successful money-getting member of the profession as a reward for collecting cases for him. Those who give were young men who wish to get the work of the specialist at the lowest possible price or specialists who had been in practice for years and whose business was not increasing. The origin of the fee-splitting custom was interesting.

Dr. Percy said that twenty-five years ago there were few surgeons and they were all in the large cities. All had immense personal followings, not only in the city, but for hundreds of miles around. These men trained assistants who went into practice for themselves and began to look for work. In order to get cases from the older men some of these younger men offered commissions to the general practitioners. After they got as much business as they wanted or could do they stopped paying commissions.

This practice, Dr. Percy thought, had been kept up by the ever-increasing number of young men who had been internes or assistants to surgeons in the city hospitals, who, seeing no chances for any returns from surgery in the city, are trying to establish themselves in the smaller towns and cities. This practice was also encouraged by so-called postgraduate schools, which gave courses in surgery and other special lines of practice. The graduates of these schools wished to acquire the position and income of specialists without devoting the time necessary to build up a clientele legitimately.

Medicolegal

Each Act by which One Practitioner Personates Another is a Separate Crime

The First Appellate Division of the Supreme Court of New York holds, in the case of People vs. Dudenhausen, that under Section 153 of the public health law of New York, which provides that "any person who shall practice medicine under a false or assumed name, or who shall falsely personate another practitioner of a like or different name, shall be guilty of a felony," each act by which one physician personates another constitutes a separate crime, and the commission of one crime has no relation to or bearing on the other.

As a consequence, the court further holds that when the indictment in this case charged a practicing of medicine with a particular individual on a particular date under a false name it was error to admit evidence of the defendant's relations to two other witnesses, one more than two months prior to the crime charged in the indictment, and one eight days before.

Here, the court says, the defendant was indicted for violating a particular statute, which provided that personating another practicing physician was a crime. To prove the crime it was necessary to prove that the defendant personated another practitioner, and the indictment alleged that that was what he did. To prove that he did practice medicine by prescribing for a person named in the indictment on a particular day named was not a part of a scheme the successful accomplishment of which the defendant was indicted for, but for violating the statute by doing a specific act charged in the indictment, and the intent of the defendant was not an essential element of the crime.

Justice Clarke, however, takes the ground, in a dissenting opinion, concurred in by Justice Scott, that the continued advertisement in the papers, inviting various persons to the same office for medical treatment by the same man, under the same impersonation, furnished a connection between the various occasions which permitted evidence thereof on the ground of a common intent and design; the offense charged being the fraudulent practicing of medicine.

Mental Requirements for Criminal Responsibility

The Court of Criminal Appeals of Texas says, on the appeal of Thomas vs. State, that the following conclusions seem to be supported by all the authorities: First, that the law does not require, as the condition on which criminal responsibility shall follow the commission of crime, the possession of one's faculties in full vigor, or a mind unimpaired by disease or infirmity; second, that the mind may be weakened by disease, or impaired, and yet the accused be criminally responsible for his acts; that he can only discharge himself from responsibility by proving that his intellect was so disordered that he did not know the nature and quality of the act he was doing, and that it was an act he ought not to do.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York

May 15

1 *Newer Conceptions of Cardiac Arrhythmias and their Treatment. T. E. Satterthwaite, New York.
2 *Cause of Trembles and Milk Sickness. E. L. Moseley, Sandusky, Ohio.
3 X-Ray Diagnosis. H. E. Smith, Norwich, N. Y.
4 Cerebral Hemorrhage Following Arteriosclerotic Granular Nephritis Mistaken for Cerebral Embolism. B. Stow, New York.
5 The Benedict Method of Quantitative Estimations of Sugar in the Urine. I. R. Pels, Baltimore.

1. **Cardiac Arrhythmias.**—Satterthwaite quotes Gaskell's division of the functions of heart muscle into five classes: (1) rhythmicity; (2) excitability; (3) contractility; (4) conductivity; (5) tonicity. We have already learned enough from sphygmographic and polygraphic tracings, studied in conjunction with other objective and some subjective signs, to enable us to classify clinically, also, at least five correspond-

ing forms of arrhythmia He refrains however, from discussing abnormalities of excitability and tonicity, because we have as yet no clinical criteria for recognizing them After discussing the neurogenic and myogenic theories and arriving at the conclusion that the influence of the nerves on the heart must be recognized equally well with the power of the muscle fibers among the influences that govern cardiac action, Satterthwaite considers in detail pneumogastric arrhythmia (fundamental or sinus irregularity) and extrasystolic arrhythmia, as disturbances in the first class No great importance is necessarily to be attached to mere sinus irregularity, because it is simply a variation in rhythmicity within normal bounds and functional in character, depending on a temporarily disturbed condition of the heart, or on an underlying systemic affection, or on temporary disturbance of the function of the nerves "Extrasystolic arrhythmia" is easily recognized in a polygram as a "premature or dwarf beat" in the radial pulse, followed immediately by an abnormally long pause It is produced by a stimulus starting in the remains of the primitive cardiac tissue in the auricle ventricle or auriculoventricular node, independently of the sinus rhythm The bigeminal pulse can be produced by extrasystoles, succession of which may produce the trigeminal or quadrigeminal pulses Extrasystoles occur at all ages and under the most varying conditions both in health and in disease Coffee and tobacco hearts and gastrointestinal reflexes are extrasystolic arrhythmias In high temperature they indicate severe toxemia, in convalescence, a weak heart, in pneumonia or rheumatic fever cardiac complications The subjective symptoms are (1) The feel of the extra thud in the chest and neck, or (2) the impression that the heart actually stops during the compensatory pause, (3) often giddiness An example of disturbed contractility is the pulsus alternans The astonishing regularity of its appearance should warn the physician that he is dealing with a case of alternating pulse rather than of extrasystole The rhythm is invariably irregular When the rate is not markedly increased patients may live for years, but when it is greatly increased, with fluttering in the chest, breathlessness, edema cyanosis and venous fulness, the prognosis is grave In affections of conductivity the stimulus for contraction starting in the sinus may be delayed, may not cross or may be blocked in its course through the auricle over the auriculoventricular bridge to the ventricle This is the cause of the several varieties of heart block Symptoms of heart block are irregularity and slow ventricular rhythm, with sometimes a sense of weakness or of exertion on dyspnea Sir William T Gairdner is said to have suffered from heart block, yet lived to 82 Errors in conductivity are easily made out by polygrams or may be determined by the inharmonious action of the radial or apex and jugular There are three varieties of this form of arrhythmia, (1) partial, (2) complete, (3) the Adams Stokes syndrome Satterthwaite discusses the treatment and urges the importance of a good polygraphic instrument for diagnosis

2 **Trembles and Milk Sickness**—Moseley endeavors to show that trembles and milk sickness in animals are due to aluminum phosphate obtained by eating the white snake root or the rayless golden rod He shows by experiment that the pathologic appearances found in animals poisoned by these plants are indistinguishable from those caused by aluminum phosphate poisoning, further, that watery extracts of the plants do not show aluminum on testing, and are not poisonous to rabbits, while the leached leaves, dried and given to a rabbit, produce the same effect as leaves from which nothing has been extracted The objection, therefore, that no poisonous effect was produced by the consumption of the gelatinous extract from evaporating the liquid in which the flesh of animals with trembles had been boiled, is not conclusive to the contrary, since the meat itself must be eaten to produce the effect The meat of animals that have died of trembles will cause trembles in animals that eat it, whether raw or boiled

Boston Medical and Surgical Journal

May 13

6 *Breast Abscesses. Report of Seven Cases Treated by Bier's Suction Method R L De Normandie, Boston
7 *Effects of Coffee and Their Remedy W Wesselhoeft, Cambridge Mass
8 *Coffee as a Beverage Its Use and Abuse R Amory, Boston
9 Imperforate Anus L C Kingman Providence R I
10 Intermittent Hydronephrosis Report of Four Cases (concluded) D F Jones Boston

6 **Breast Abscesses**—De Normandie describes the apparatus and method for applying Bier's suction, and reports in detail seven cases of abscess of the breast in which he has used it with excellent results in six cases and failure in one He discusses each of the cases separately.

7 **Coffee**—Wesselhoeft discusses the injurious effects of coffee in the light of laboratory investigations, which, he concludes, tend to show that the caffein is the noxious constituent He describes a preparation which, it is asserted, renders possible the extraction of the caffein from the coffee bean, without at the same time depriving the infusion of its savor and aroma

8 **Idem.**—Amory says that caffein and tannic acid should be excluded as far as possible, from the cup of coffee, in order to avoid a deleterious effect, while as much as possible of the volatile oils should be included in it Coffee should therefore, be taken with food and not fasting After a full meal or during it, coffee is beneficial to digestion When brain or muscular stimulation is desired it is better to take caffein, for it can be accurately dosed Hot or boiling water should be avoided in making coffee, and an infusion should be made with cold water Amory has for the last eight years prepared his coffee in a porcelain or china vessel with cold water It does not lose color, strength or aroma for two or three weeks if kept corked and in a cool place The infusion is prepared in a concentrated form and, before using, water, milk or cream, heated to boiling point is added to set free the volatile oils He describes the preparation of the cold coffee extract He particularly objects to the use of metal utensils and hard water which contains salts

New York Medical Journal

May 15

11 Clefts of the Axis Cylinder the Cable of the Nervous System Sir J Grant Ottawa Canada
12 Ophthalmia Neonatorum and its Prophylaxis from the Standpoint of the Ophthalmologist C S Bull New York
13 Preventable Blindness from the Standpoint of the Obstetrician J C Edgar New York
14 Ophthalmia Neonatorum P A Morrow, New York
15 Ophthalmia Neonatorum F Krauss, Philadelphia
16 *The Individual as a Surgical Factor A M Crispin, New York
17 Deficient Oxidation in Relation to the Etiology, Pathology, and Treatment of Nephritis (to be continued) N E Dittman and W H Welker, New York
18 *Deafness Following Febrile Diseases, and Its Prevention J A Pratt, Aurora, Ill

16 **The Individual as a Surgical Factor.**—Crispin discusses the reciprocal influence of diseases and traumatism produced either accidentally or intentionally He says that it is a dangerous error to undervalue the constitutional disturbances which underlie many surgical diseases, and a useless nicety to establish a distinction between diatheses and the lesions which they produce, it is a well known fact that wounds are dangerous in persons who are suffering from certain general diseases, such as diabetes, malaria, syphilis, general intoxications, either from internal or external sources, as those from the intestines, alcoholism, saturnism, etc, all conditions that may eventually cause alterations of the liver, heart or kidneys Alcoholism has only to be mentioned to evoke that dreaded postoperative sequel, delirium tremens and the general alterations of the organism, for it is a truism that chronic alcoholism profoundly modifies the recuperative process These morbid conditions have a decided influence on all surgical operations, even before the lesions which they produce become appreciable He then discusses in detail, in the order which their gravity demands the constitutional states which have to be corrected or eliminated if possible before attempting any surgical procedure They are Renal insufficiency, asthenia, autointoxication, hepatic insufficiency glycosuria, cardiac insufficiency, anemia malaria, syphilis and the mental status, particularly with reference to fear He concludes with an earnest plea for a more extended recognition of the heterogeneity of the individual, and a fuller appreciation of the bear

ing of the above-mentioned constitutional conditions on the question of operative interference.

18. **Deafness Following Febrile Diseases.**—Pratt summarizes his paper as follows:

1. The majority of ear diseases are caused by adenoids and enlarged tonsils.
2. These conditions are in the greater proportion caused by mechanical obstructions of the Eustachian tube.
3. The germs found in the secretions are present in the normal middle ear as they are in the nasopharynx and sinuses.
4. While varying in different parts of the country, from 25 to 30 per cent., of the children have adenoids or enlarged tonsils.
5. All hypertrophied lymphatic tissues of the nasopharynx should be early and completely removed, so that mechanical obstruction of the Eustachian tube will not occur during congestion of the nasopharynx, to interfere with the drainage and ventilation of the middle ear.

Lancet-Clinic, Cincinnati

May 8

19 *The Non-Preservative Situation. P. W. Greyer, Cincinnati.
20 Uro-Ureter. B. Robinson, Chicago.
21 *New Process for Making New Noses in Twenty Minutes. H. R. Allen, Indianapolis.

May 15

22 Case of Mediastinal Sarcoma, with Special Reference to Differential Diagnosis. R. H. Babcock, Chicago.
23 Use of the Molded Plaster-of-Paris Splints in Fractures. J. E. King, Richmond, Ind.
24 A Question in Therapeutics. B. Horne, Gas City, Ind.
25 Polynasal Catarrh—So-Called La Grippe. H. Hays, New York

19. **Preservatives.**—Greyer makes a forcible criticism on an address by Dr. R. G. Eccles on "the preservative situation" before the American meat packers' convention. He combats the contention that preservatives are necessary to keep the price of food within reach of the poor, by pointing out that they pay more now for their preserved provisions than they did years ago for non-preserved provisions, and asserts that this increase is due, not to increased cost of production or reasons of supply and demand, but to the machinations of the very men whom Eccles was addressing. The only way in which preservatives lessen the cost of production is by enabling these men to put on the market unfit contaminated products which would be rejected without preservatives. He discusses ptomain poisoning, citing passages from eminent authorities to demonstrate that ptomains are not dangerous in early putrescent stages; that most primary ptomains are destroyed by heat; that in advanced stages of putrescence ptomains are most dangerous; that secondary ptomains produced by age are not destroyed by heat; that especially dangerous ptomains have their origin in the non-putrid flesh of diseased animals; that the formation and poisonous effects of these are not prevented by preservatives; that sterility is not proof of their absence; that cleanliness, freshness and freeness from disease at time of curing or canning effectually prevents ptomains; and that days must elapse on opening a can ere dangerous ptomains can generate in such foods. He insists that water is a greater cause of typhoid than milk is, and that preservatives used in milk to kill all germ life or spores would be more fatal than the disease produced by them.

21. Abstracted in THE JOURNAL, Oct. 31, 1908, p. 1536.

Annals of Surgery, Philadelphia

May

26 An Analytic and Statistic Review of 1,000 Cases of Head Injury (continued). C. Phelps, New York.
27 Osteosarcoma of the Mandible. A. Hewson, Philadelphia.
28 *Congenital Mesenteric Cysts. H. C. Deaver, Philadelphia.
29 "Essential Hematuria" and "Nephralgia." A. Schwyzer, St. Paul.
30 *Renal Varix. P. M. Pilcher, Brooklyn
31 On Renal and Ureteral Calculi. G. Woolsey, New York.
32 *Procidentia Recti; Treatment by Excision. J. H. Cunningham, Boston.
33 *Intestinal Anastomosis by Invagination. A. E. Maylard, Glasgow, Scotland.
34 Excision of the Shoulder Joint. C. L. Scudder and J. D. Barney, Boston.

28. **Congenital Mesenteric Cysts.**—Deaver reports cases of congenital mesenteric cyst and reviews the literature of the subject. He enumerates the four ways of dealing with intramesenteric cysts: (1) by aspiration; (2) by cystostomy and drainage, with or without the use of caustics; (3) by enucleation; and (4) by resection of the involved intestinal segment. The first method is obsolete, the second is useful in the presence of numerous adhesions, the third is ideal when practicable, and the fourth he recommends in multiple juxtaposed cysts when too much surgical interference, as from dealing with cysts one by one, carries more risk than simple resection.

30. **Renal Varix.**—Pilcher considers renal varix a distinct pathologic entity, being an angiomatous disease of the renal papillæ, analogous to varicocele, etc. Many cases of supposed idiopathic hematuria are due to it. It may be impossible to differentiate it before operation from hematuria due to nephritis and renal papilloma. In most cases gross pathologic lesions are not found, but microscopic examination shows angiomatous disease of the papillæ. Renal decapsulation and fixation of the kidney will cure cases of unilateral hematuria due to nephritis. Nephrotomy is the operation of choice, the incision being made along Broedel's line, to avoid injury to arteries. Nephrectomy is indicated only when rapid and bloodless operation is demanded, or when nephrotomy fails to relieve the hematuria.

32. **Procidentia Recti.**—Cunningham describes an operation which he has employed satisfactorily in dealing with prolapse of the rectum in three cases, namely, by excising the mass. He was unable to find a description of the details of procedure, though the operation is recommended, so he publishes his own technic in detail. He summarizes his cases. The results of the operations have been most satisfactory and it is a surprising fact that continence of feces has resulted.

33. **Invaginating Intestinal Anastomosis.**—Maylard describes in detail a simple method of anastomosing one segment of the intestinal canal within another. He illustrates it with a case of excision of the cecum. After removal of the diseased part, the proximal patent end of the ascending colon is stitched up and withdrawn enough to permit a longitudinal incision of sufficient length (determined by the size of the ileum) to be made through the parietes slightly above the occluded end. A large-eyed needle, threaded with a silk suture about 18 inches in length, is carried three or four times across the patent orifice of the ileum, as if to occlude it. The free end of the suture, left long, is passed through the eye of the needle, so that the ileum is now secured as by a sling. The needle is passed into the colon through the previously made incision, and directed up the intestinal canal for about two inches, when it is made to penetrate the bowel wall from within outward. By pulling out the needle and dragging on the sling suture, the ileum—with a little guiding—is drawn through the incisions and made to pass for a short distance along the canal of the colon. While an assistant keeps tension on the sling, the operator begins to fix the ileum to the colon by a series of interrupted Lembert sutures, passed around the circumference of the opening of the colon. The needle is unthreaded; and by pulling one end of the sling suture the other is drawn out of the ileum, the orifice of the latter being thus left free to open out. It only remains for security's sake to tie a ligature around the puncture in the colon through which the needle and suture pass. The immediate advantage claimed for this operation is a lessening of the time of execution with the consequent minimizing of the risks of shock and infection. The after-advantage is the probability that neither occlusion nor contraction will take place at the opening of the colon. Maylard discusses the future fate of the portion of bowel drawn into the canal, and mentions intussusception as a possible untoward result.

American Journal of Medical Sciences, Philadelphia

May

35 *Diagnosis of Gastric Ulcer as Tested by Operation. J. N. Hall, Denver, Colo.
36 Diet in Typhoid Fever. S. Strouse, Baltimore.
37 *Typhoid Bacilluria. K. Connell, New York.
38 *Surgical Treatment of Perforation of Intestines in Typhoid Fever. F. D. Patterson, Philadelphia.
39 *Spasm of Chest Muscles, Particularly the Intercostals, as a Physical Sign of Disease of the Lungs. F. M. Pottenger, Monrovia, Cal.
40 Gastric Digestion in Infants. T. W. Clarke, New York.
41 Syphilis of the Stomach and Intestines. A. D. Kohn, Chicago.
42 The Liver in Tuberculosis. J. T. Ullom, Philadelphia.
43 Ascites in Cirrhosis of Liver Cured by Repeated Tappings. H. S. Patterson, New York.
44 *Adiposis Dolorosa. G. E. Price, Philadelphia.
45 Chemistry of the Urine in Diabetes Mellitus. C. P. Howard, Montreal.
46 Intestinal Obstruction: An Outline for Treatment Based on the Cause of Death. J. W. D. Maury, New York.

35 **Diagnosis of Gastric Ulcer.**—Hall has studied fifty consecutive cases of gastric, pyloric and duodenal ulcer in which the diagnosis was placed beyond all doubt by the findings at operation, expressly to bring out the relative frequency and value of the different symptoms and signs of ulcer. In brief, it was noted that pain (82 per cent.), persistent sour stomach (80 per cent.), tenderness (70 per cent.), vomiting (66 per cent.), and rigidity (60 per cent.), were the most frequent indications of ulcer. Gastric hemorrhage occurred in only 34 per cent. and bloody stools in only 8 per cent. The author's experience confirms that of the Mayos that those patients with the stomach dilated beyond all hope of regaining its motor power, generally fail to improve. There is frequently great dilatation in cases in which on operation the pylorus admits a finger freely so that mechanical obstruction can not be the sole factor. The influence of spasm of the pylorus from the irritation of an ulcer in that region possibly from hyperacidity alone in the causation of such a dilatation is most important. The frequent finding at operation of enlarged lymph nodes should be noted, as well as the chance of error in basing a diagnosis of cancer on their presence with an associated thickening about the pylorus. Hall suggests that we are inclined to look on gastric ulcer as comparatively rarer than it is, that we are too apt to look for a classical history especially of vomiting and hematemesis, with a high acidity reported from the laboratory, and that in consequence of placing too much reliance on the chemical findings and too little on the physical examination we make too many diagnoses of hyperacidity, when the finding, by careful examination of the slightest unilateral rigidity in the epigastric region associated with local tenderness, should lead us to diagnosticate ulcer instead. The chemical evidence is so extremely variable that we should not let it overweigh the more reliable findings of the bedside examination.

37. **Typhoid Bacilluria.**—Connell draws the following conclusions:

1 Typhoid bacilluria is a great menace to public health Of all excretions containing typhoid bacilli, the most dangerous is the urine of the declining and postfebrile stage of typhoid fever. The feces are a greater public menace during the active stage of the illness but taking the course of typhoid fever as a whole, the urine is probably the great spreader of this disease However, in chronic typhoid bacillus-carriers, the bile more frequently than the urine is the medium in which the bacteria have perpetuated themselves

2 As a routine in every case of typhoid fever, during the decline and convalescence, the urine in the bladder should be rendered inhibitory to the growth of typhoid bacilli Bacilluria once established should be terminated by urinary antiseptics or by irrigation of the bladder. Obstinate ulcerative cystitis should be treated by surgical drainage The passed urine of the typhoid fever patient at all stages of the illness should be disinfected with the same care as the feces

38. Abstracted in THE JOURNAL, Dec. 19, 1908, p. 2182.

39. **Spasm of the Intercostals as a Physical Sign in Lung Disease.**—Pottenger has found rigidity of the chest muscles, particularly the intercostals, a constant sign in patients suffering from pulmonary tuberculosis Not only has he been able to map out the areas of infection, but he has been able to judge the nature of infiltration with a considerable degree of accuracy by the condition of the muscles, the rigidity being much greater over dense infiltrations than over those of less degree, and greater over recent inflammatory infiltrations than over old quiescent ones. He discusses the explanation which remains doubtful. The intercostal rigidity must not be confused with the feeling of resistance found over non-air-containing organs like the liver and heart. He demonstrates that it is a true muscle spasm not dependent on the thickness of the muscles themselves. The best method of detecting the intercostal rigidity is a systematic palpation of the intercostal spaces beginning at the lowest and comparing the rigidity of space with the one above and also with the corresponding space on the other side. In examining, the fingers should not be placed flat on the chest, but the palpation should be made with the ends of the fingers gently pressed into the intercostal spaces. In advanced cases of pulmonary tuberculosis, he has found that when the tissues break down and form a superficial cavity the resistance formerly noted disappears. This he attributes not to the diminution of rigidity, but to the lack of support previously furnished by infiltrated tissue. He holds that this spasm of the chest muscles, besides being an important diagnostic physical sign in itself, helps to explain other well-recognized signs, such as lagging on the affected side, contraction of the chest wall, ankylosis of the costo-sternal articulation, diminution of the respiratory murmur and the harsh impaired respiratory note. So far, he has been able to detect muscle rigidity above the clavicle and the spine of the scapula, or in the first intercostal space, in every early case he has examined. The rigidity remains for a long time, even over long healed lesions. This he attributes to a fibrous degeneration. He protests against the tendency brought about by the introduction of laboratory methods to neglect physical diagnosis.

44. **Adiposis Dolorosa.**—Price reports two cases that came to autopsy, and discusses the subject in the light of these observations. The disease develops gradually in most cases; occasionally rapidly but never abruptly. The cardinal symptoms are (1) fatty deposit; (2) pain and tenderness on manipulation of the adipose deposits; (3) general asthenia; (4) psychic phenomena. He discusses these separately. He differs with those who disregard alcoholism and syphilis as possible etiologic factors He summarizes the results of the 6 previously recorded autopsies and the 2 now reported, and finds the thyroid affected in 7 of the 8 cases. The hypophysis also was distinctly affected in 5 cases, and had been unexamined microscopically in at least 2 of the remaining 3 cases. It has been found that in animals when the thyroid is extirpated the pituitary body enlarges. He thinks that sufficient attention has not been given to the hypothesis, and suggests that etiologically it is almost as important as the thyroid. He suggests that the symptom group may result from a primary disease of either of those structures, the other being involved secondarily, though their close interrelations have been noted in other structures, particularly the genital organs. Recovery from adiposis dolorosa is rare, but the disease itself does not directly cause death. Complete intermissions are but remissions and are common. The treatment leaves much to be desired. The salicylates advantageously combined with bromid salts are useful to relieve pain. Aspirin is of value Extract of the thyroid gland is the most valuable remedy at our command. The pituitary body at present has little value as the results of its use are not known. Potassium iodid is called for with a syphilitic history. The heart may require attention

American Journal of Physiology, Boston

May

47 *Mercurial Poisoning of Men in a Respiration Chamber. T. M. Carpenter and F G Benedict, Boston
48 Preliminary Observations on Metabolism During Fever. T. M Carpenter and F G Benedict, Boston
49 Variations in Enzyme Concentration with the Variation in the Blood Supply to the Secreting Gland J. G. Ryan, Chicago
50 Rheotropism of Fish Blind in One Eye. E P. Lyon, Woods Hole Mass
51 Hydrolysis of Crystallized Albumin from Hen's Eggs T. B. Osborne, D B Jones and C. S Leavenworth, New Haven, Conn
52 Effects of Chlorid, Sulphate, Nitrate and Nitrite Radicles of Some Common Bases on the Frog's Heart. F C. Cook,
53 *. f Faradic Stimulation III. The Meas- Shocks E G Martin, Boston
54 Method of Determining the Position of the Center of Gravity in its Relation to Certain Bony Landmarks in the Erect Position E Reynolds and R W Lovett,
55 *Absorption of Fat R H. Whitehead, Charlottesville, Va

47. **Mercurial Posoning.**—Carpenter and Benedict, in working with a respiration chamber in which the exit tubes were closed with mercurial valves, observed several instances of poisoning of the men experimented on in the chamber, which they attribute to the toxic action of mercurial vapor. On reference to the literature they find that Bing reports nine cases of poisoning in a hospital, due to the escape of steam through a mercury reduction valve The patients exhibited a temporary rise of temperature, increase of pulse rate, cyanosis, vomiting and diarrhea. Two of the patients (infants) died, but the others recovered in a few days Carpenter and Benedict give the record of nine experiments in which symptoms of poisoning were exhibited. The symptoms were usually nausea, increase of pulse rate and respiration, and in most cases rise of temperature. Attempts to demonstrate the

presence of mercury and its effects on animals were inconclusive. Some difference in susceptibility was shown, as some individuals showed no symptoms after a long stay in the respiration chamber.

53. **Faradic Stimulation.**—Martin has worked out a formula for the measurement of "make" shocks, and draws the following deduction: Comparison of the formula for "make" shocks with the one previously established for "break" shocks, shows that the relationship between the two sorts of stimuli depends in any given inductorium altogether on the intensity and voltage of the current through the primary coil. The effects on the relation between "break" and "make" shocks of variations in the intensity and voltage of the primary current may be stated in general terms thus: The higher the voltage of the primary current and the less its intensity, the more nearly will "make" shocks equal "break" shocks; conversely, the lower the voltage of the primary current and the greater its intensity, the more will "break" shocks exceed "make" shocks. With primary currents of high intensity and low voltage large variations in intensity produce relatively slight alterations in the stimulating values of "make" shocks.

55. **Absorption of Fat.**—Whitehead has endeavored to test the question as to whether fat is absorbed in emulsion or in the form of soap, by staining the fat fed to a cat with sudan III. The animal was killed and the intestinal villi and lacteals examined. It was found that while the fat in the lumen of the intestine was colored, that in the villi and lacteals was colorless. The experiment appears to show that fat is absorbed, not in the form of an emulsion, nor in the solutions of fatty acids, but in the form of a soluble soap.

Journal Medical Society of New Jersey, Orange

May

56 Laboratory Work in Physiology in Relation to Medical Practice H Emerson, New York
57 Bacteriologic Notes on Diphtheria G T. Welch, Passaic
58 Modern Urologic Diagnosis G N. J Sommer, Trenton
59 Recent Advances in Knowledge of Digestive Processes J J. Gilbride, Philadelphia
60 Psychotherapy C C Beling, Newark.
61 Duct Papilloma Papillary Cystadenoma of the Breast. A A. Strasser, Arlington
62 Recurrent Iridocyclitis C. J. Kipp, Newark

Ohio State Medical Journal, Columbus

May

63 Factors of Shock and Sepsis in Technic F. F. Lawrence, Columbus
64 Treatment of Tuberculous Joint Disease in Childhood. W G Stern, Cleveland
65 Causes of Chronic Urethral Discharge—Urethritis A. W. Nelson, Cincinnati.
66 Advisability of Operative Interference in Malignant Disease of the Larynx S Allen, Cincinnati
67 Cyclopleglia A J Hill, Canton
68 Rabies Report of Prophylactic or Pasteur Treatment Taken at Home by Writer G W. Rogers Columbus
69 The Electro Magnet in Removal of Iron and Steel Particles from the Eye V Ray, Cincinnati

Bulletin Johns Hopkins Hospital, Baltimore

May

70 Colloid Glands (Goiters) · Their Etiology and Physiologic Significance D Marine and C. H Lenhart, Cleveland
71 Lesions of the Nerve Cell and Vascular Tissues Produced by Acute Experimental Alcoholic Poisoning. H J. Berkley, Baltimore
72 *Acquired Venereal Infections in Children F. Pollack, Baltimore

72 **Venereal Infections in Children.**—Pollack gives a study of 187 children treated in the women's venereal department of the Johns Hopkins Hospital Dispensary. There were 54 white children of 6 years and under, as compared with 33 colored, and 63 colored over 6 years of age as compared with 33 white The increase in acquired venereal infections in children is greater than the medical profession or the laity realizes, and the increasing frequency of the criminal infection of baby girls makes the subject a matter of grave concern. Clinically, the venereal infections in children run a milder course as regards grave complications than is the rule in the adult, but the number of complications and the duration of the disease seem almost identical. Pollack insists that the cause of most outrages on children is to be found in the superstition that a person infected with either syphilis or gonorrhea may get rid of it by infecting another, preferably an "untouched virgin;" thus a defenseless child is a most natural victim. She believes that if one were to ask ten police officers, cab drivers, hucksters, etc, of the truth of this superstition, eight would affirm it as a "fact," and all would know of its existence, so common is it. She has been frequently requested to prepare women for maternity with the avowed intention of "having the baby take the disease away from them." She does not credit the majority of this abuse of infants to sexual perversion, for the appalling number of cases seems too large to credit to perverts. She analyzes her cases, discusses the question of temperature in gonorrhea, and the treatment of venereal diseases in children; and, further, urges the necessity of cooperation in prophylaxis with the medical profession of the school board, juvenile courts, police departments, the state attorney's office, and such charitable institutions as the Playground Associations, the Charity Organization Society and Prisoner's Aid societies.

Journal Advanced Therapeutics, New York

May

73 Anterior Poliomyelitis H W. Frauenthal, New York
74 Ideals F. A Davis, Boston
75 Treatment by Superheated Air under Pressure F. H Humphris, London, Eng
76 *Physiologic Effects of Light Energy. H McIntosh, Boston

76. **Light Energy.**—McIntosh, from a consideration of recorded experiments and observations, summarizes as follows the physiologic effects of light energy:

Light energy may produce an instant effect on the skin It increases pigmentation of the skin and the energy of the sweat glands, and produces superficial hyperemia; and, as a determination of blood to the surface of the body can not take place without its withdrawal from the interior, it follows that when large areas of the body are exposed to light energy, there must be a depletion of the viscera It exerts an inhibitory effect on bacterial growth in living tissue, a conclusion that finds confirmation in its clinical applications It increases the elimination of carbon dioxid and the activity of the process of combustion, as well as urinary elimination; tends to raise the normal temperature and accelerate pulse and respiration, and to improve metabolism. It may produce motor excitation and reflexes. Colored rays of the spectrum may produce marked physical impressions. Blue light increases the energy and resistance of voluntary muscles, and tends to produce analgesia, frequently passing into anesthesia The chemical frequencies exert an unfavorable influence on the exanthemata. He concludes his paper with a comparison of the efficiency of the various methods for the therapeutic employment of light energy, viz, solar energy, electric light baths, incandescent baths, concentrated energy of the sun, concentrated energy of the electric light, concentrated incandescent light energy, blue light energy, energy of red light, ultraviolet light energy, vacuum tube discharges and fluorescence.

Journal Nervous and Mental Disease, Lancaster, Pa.

May

77 *Motor Ataxia from Emotion S W Mitchell, Philadelphia
78 Tumor of the Frontal Subcortex and Callosum, with Flaccid Paralysis of the Muscles which Support the Head, Aphonia, Mental Change, and other Symptoms Illustrated by a Case with Necropsy C K Mills, Philadelphia,
79 *Optic Neuritis Associated with Disease of the Nasal Accessory Sinuses S D Risley, Philadelphia
80 *The Symptom Complex of Central Neuritis. I H Coriat, Boston

77, 79. Abstracted in THE JOURNAL, Feb 27, 1909, p. 727.

80 **Central Neuritis.**—Coriat summarizes 23 cases of central neuritis in which the symptom-complex of diarrhea, loss of weight, emaciation, muscular rigidity and twitching, with some fever and some changes in the reflexes, was present, 6 times in the alcoholic psychoses, 3 times in melancholia, 5 times in dementia præcox, twice in senile depression, twice in carcinoma of the uterus, 3 times in acute delirium, and once in manic-depressive insanity. He says that since the symptom complex of central neuritis is purely terminal in nature, occurring as the end-picture of certain cachectic, depressive or delirious states, recovery can not take place. On the other

hand, depressive psychoses with marked emaciation and diarrhea are frequently observed, in which neither clinically nor anatomically, can any central neuritis be demonstrated What, then, are the conditions necessary for the production of central neuritis? A toxic etiology can easily be dismissed, as the presence of cholin and the findings in the urine are merely secondary. Furthermore, in one of Coriat's cases, a careful examination of the urine, both chemically and physiologically, failed to demonstrate any poisonous products The change in the nerve cells can not be produced by inanition, for he has seen that under these conditions there is nothing resembling the axonal reaction. The symptom-complex can be fairly satisfactorily explained, however, by an application of Edinger's *Ersatz-Theorie* For the maintenance of a perfect function of the nerve cell, it is necessary that the reparative power of the cell should be accurately balanced and adjusted. If the cell becomes unable to repair the loss sustained by its functional activity, a progressive degeneration of the entire neurone follows. Mott has also pointed out how in neurones in a low state of nutritional equilibrium degeneration first begins in the fine collaterals and terminals and proceeds back to the cell of origin. Now, in certain psychoses the loss in weight, the diarrhea and the emaciation reduce the neurones to such a low state of nutrition that they absolutely destroy its reparative power. As a result, the entire neurone degenerates and the peculiar symptom complex of central neuritis follows

Albany Medical Annals

May

81 The Rectal Shelf G Blumer New Haven, Conn.
82 *Atrophy of the Testicle C G Cumston, Boston
83 *The Nervous Child H L K Shaw, Albany, N Y
84 Cyst of the Frontal Sinus Communicating with the Frontal Lobe C F Theisen Albany

82. **Atrophy of the Testicle.**—Cumston says that when one testicle is only slightly atrophied it gives rise to very little disturbance, but when both organs are involved there is complete impotency, or at any rate generative impotency Under certain circumstances certain psychic disturbances occur, such as loss of courage and activity, and to a certain extent, changes in character.

83 **The Nervous Child.**—Shaw discusses the effects of excessive emotionalism and says that fear is the emotion most apt to produce permanent injury in a child of neurotic temperament Fear implies imagination, and the child who suffers most is the most imaginative Most of the neurasthenia, hypochondriasis and hysteria, in adults, may be traced to the effects of fear in early life Reflex irritation, from whatever source, plays an important part in the etiology of child nervousness It occurs from the prepuce or clitoris, from gastrointestinal irritation, slow absorption of intestinal toxins, etc. Shaw describes the characteristics of the nervous child, and particularly notes the display of this characteristic in regard to food He condemns the custom of administering medicine in food The training of the child's nervous system can not be begun too early The child is an imitative creature, and if the parents expect to exert proper influence they must hold themselves in check in his presence. In cases of willfulness and lack of discipline, the best results can be obtained when the child is removed from his ordinary surroundings, though it is difficult to convince the parents that this is necessary and that the mother is not the proper person to take care of this kind of case. The nervous child is the product of our present-day methods of living and the genius is rapidly increasing.

Journal Arkansas Medical Society, Little Rock

April

85 Pulmonary Tuberculosis D C Walt, Little Rock
86 Measles A L Carmichael Little Rock
87 *Rheumatism M G Thompson, Hot Springs
88 Surgical Cases J C Hughes Walnut Ridge
89 *Puerperal Eclampsia C M Lutterloh, Jonesboro
90 Cases of Progressive Pneumonia J M Stephens, Clover Bend
91 Cancer of the Esophagus A Watkins Little Rock
92 *Toxemia of Pregnancy E C Myers, Fort Smith

May

93 The Coexistence of the Symptoms of Appendicitis and Right Kidney and Ureteral Irritation L Young, McAlester, Okla
94 Symmetrical Gangrene, or Raynaud's Disease L E Runkle, El Reno Okla
95 Extrauterine Pregnancy with Escape of Fetus through the Rectum J D Harbert, Marie

87. **Rheumatism.**—Thompson discusses the great variety of cases classed together under the term rheumatism He particularly dwells on pressure, both inside and outside the rectum, as a factor in the causation of sciatica, and cites instances in which relief immediately followed a discontinuance of the habit of carrying heavy things, books, etc., in the hip pocket.

89. Abstracted in THE JOURNAL, 1908, p 250

92. **The Toxemia of Pregnancy.**—Myers summarizes his paper as follows

1 There is a special toxemia of pregnancy, but the exact nature of the toxic substance or substances is not known
2 The theory is tenable, that it may be due to some vice of placental syncytial tissue
3 The pathologic changes are, primarily, necrosis of the periphery of the liver lobules in eclampsia, with secondary changes in the kidneys and brain while in pernicious vomiting the necrosis is more marked in the center of the lobules as an acute atrophy of the liver
4 Laboratory findings are of value in determining the question of treatment or termination of pregnancy, and the quantitative analysis of the nitrogen output is more important than searching for casts or albumin
5 In eclampsia with soft, dilated cervix, empty the uterus at once With rigid undilated cervix, be governed by the clinical picture in each case If critical, forcibly dilate and empty the uterus or under strict asepsis, perform Cesarean section
6 In pernicious vomiting the time to terminate pregnancy must be determined by the laboratory analysis if available by the progressive emaciation and the first indication of exhaustion fever

Myers concludes that while careful urinalysis is an important aid, still such examinations have the value only of all laboratory reports, and any decision as to therapeutic measures or the termination of pregnancy must be based on the condition of the individual patient And, while we should never be eager to do this, we must keep in mind the possible necessity of terminating pregnancy.

Colorado Medicine, Denver

May

96 Relation Between Retinal Hemorrhages and High Arterial Pressure L W Fox and W C Batroff Philadelphia
97 Myocardial vs Endocardial Affections as a Cause of Disability and Death O M Gilbert Boulder
98 General Neuritis of both Cranial and Spinal Nerves following Typhoid E W Lazell, Denver
99 Plea for Concerted Action of the Profession in Matters Pertaining to Medical Legislation in Colorado S D Van Meter Denver

Denver Medical Times and Utah Medical Journal

May

100 Etiology Prophylaxis and Treatment of Puerperal Infection. H E Abrahams Trinidad, Colo
101 Management of Labor for Nurses T M Burns, Denver
102 Venereal Diseases W H Davis Denver
103 Modern Trend in Medical Education J Sundwall, Salt Lake City

Illinois Medical Journal, Springfield

May

104 *Psychotherapy S Kuh, Chicago
105 *Psychotherapy from the Psychologist's Point of View J R. Angell, Chicago
106 *The Religious Therapeutic Movement I H Coriat, Boston
107 *The Medical Uses of Hypnotism H T Patrick, Chicago
108 *The Scope of Psychotherapy H Gradle Chicago
109 Psychotherapy W D Scott, Evanston Ill
110 Prevention and Inhibition of Diffuse Suppurative Peritonitis A J Ochsner, Chicago
111 The Sequelæ of Acute Diffuse Suppurative Peritonitis C. Davison Chicago
112 Report of Five Cases of Liver Resection L Feingold, Chicago
113 Diagnosis and Treatment of Extrauterine Pregnancy F H. Martin Chicago
114 Blood Pressure in Chronic Interstitial Nephritis with Special Reference to Treatment G W Parker, Peoria

104, 106, 107 Abstracted in THE JOURNAL, March 13, 1909, pp 916, 917.

105. Abstracted in THE JOURNAL, March 13, 1909, p. 916, and published in the *Chicago Medical Recorder*, March, 1909

108. **The Scope of Psychotherapy.**—Gradle says that while it is well known that the objective signs of any disease are directly proportionate to the intensity or extent of the morbid lesion or process, the subjective symptoms often seem to be more capricious in their degree They vary with the individuality or even with the temper of the patient. The intensity of the pain and of other disagreeable sensations pro-

duced by a disturbance is increased by the concentration of attention, and conversely diminished by diversion of the attention. The query whether the mind can influence the actual course of lesions, as well as the subjective symptoms produced by them, is a difficult one to answer. As a rule, the cases quoted by older writers and the bulk of the illustrations mentioned by the laity can not stand the test of rigid criticism. Closer inquiry generally shows that subjective improvement was mistaken for objective changes. Indeed, it would be difficult to find the record of a case in which the direct influence of the mind on the course of any morbid lesion had been observed beyond doubt. It is easy enough to demonstrate the effect of emotions, of mental activity or mental fatigue on the circulation, the respiration and some secretions; in fact, on any process controlled directly by the nervous system. But it has yet to be shown that mental processes can in any way influence the phenomena of growth, of nutrition or of tissue change. Yet it seems reasonable to admit that the state of the patient's mind may directly influence the struggle with certain chronic diseases, especially those the course of which depends somewhat on the state of nutrition, as, for instance, slow tuberculosis. With confidence and hope a patient is much more apt to avail himself properly of all hygienic advantages and to utilize them to a better extent than when in a despondent frame of mind.

Bulletin Medical and Chirurgical Faculty of Maryland, Baltimore

May

115 Sketch of the Library of the Medical and Chirurgical Faculty of the State of Maryland. M. C. Noyes, Baltimore.

Memphis Medical Monthly

April

116 The Doctor's Attitude toward Certain Problems of Adolescence. B. F. Turner, Memphis, Tenn.
117 Sexual Education. H. C. Buck, Friars Point, Miss.
118 Experience with Apparently Mild Cases of Appendicitis. M. Moore, Memphis.
119 *Spirillosis of the Lungs. W. B. Johnson, Rosedale, Miss.
120 Treatment of Tuberculosis by Tuberculin. R. B. Underwood.

119. **Spirillosis of the Lung.**—*Johnson records* what he believes to be the first reported case of spirochetal infection of the lung. It occurred in a negro woman of 35, who had been feeling ill for a week before she had a hard chill followed by temperature of 106 F., pulse 110 and respirations 24. There was constant severe pain in the right side in the axillary line. Chest sounds were normal, except a few crepitant and subcrepitant râles. The lungs dilated evenly, there was slightly more fremitus and a duller note was heard on the right side posteriorly, and the breath and voice sounds were more distinct. The blood showed a sharp leucocytosis, but no malaria. The urine was loaded with albumen. The sputum, when stained for tubercle bacilli, showed none, but in every field there were numerous spirilla from one and a quarter to one and a half times the width of a red blood corpuscle, very thin and wavy. They stained blue, like the cocci, but not so dark. They also stained easily with a saturated suture of methylene blue, Loeffler's solution and the Wright blood stain. Johnson describes the course of the disease, which was severe, resolution setting in by crisis, with final recovery. The treatment was entirely symptomatic. He has seen two other cases, but reports this one only, as it was under observation from the initial chill. The case resembles relapsing fever, but no spirilla were found in the blood, while they were numerous in the sputum. The special complications of relapsing fever are bronchitis and pneumonia. He suggests a further search for this affection.

New Orleans Medical and Surgical Journal

May

121 Headaches as a Symptom in Pregnancy and Pelvic Disorders. C. N. Chavigny, New Orleans.
122 Nasal Causes of Headache. A. J. Weil, New Orleans.
123 Headaches of Organic and Constitutional Origin. I. I. Lemann, New Orleans.
124 Headaches Due to Functional and Organic Disturbances of the Eye. H. V. Blum, New Orleans.
125 Headaches as a Symptom of Disease of the Nervous System. R. M. Van Wart, New Orleans.
126 Treatment of Flatfoot. E. S. Hatch, New Orleans.
127 Interesting and Instructive Bone and Joint Cases. J. F. Oechsner, New Orleans.
128 Importance of Examination of the Urine for Tubercle Bacilli, with Presentation of a Specimen of a Tuberculous Ureter Showing Calculi *in Situ*. F. W. Parham, New Orleans.
129 Use of the de Pezzar Catheter in Surgery. F. W. Parham, New Orleans.
130 Otitis Externa Acuta. R. F. Harrell, Alexandria, La.
131 Acute Nephritis in Children. O. M. Patterson, Bastrop, New Orleans.
132 Plea for Surgical Diagnosis by the General Practitioner with Report of Two Cases of Ruptured Tubal Pregnancy. T. Ragan, New Orleans.

Journal Oklahoma State Medical Association, Guthrie

January

133 Obstetrics and Gynecology. J. A. Walker, Shawnee.
134 Some Pathologic Conditions Justifying Therapeutic Abortion. G. H. Thrailkill, Chickasha.
135 Gonorrheal Complications of the Puerperium. J. J. Shipp, Belle Plain, Kan.
136 Syphilis. J. E. Stinson, Chickasha.

February

137 Plea for More Accurate Diagnosis of Disease in Infancy and Childhood. L. J. Moorman, Oklahoma City.
138 Laryngeal Diphtheria, with Special Reference to Intubation. T. J. Dodson, Mangum.
139 Points to be Observed and What they Indicate in the Examination of a Sick Child. J. H. Medaris, Helena.
140 Diagnosis of Brain Abscess—A Sequel to Purulent Otitis Media. H. C. Todd, Oklahoma City.
141 Professional Ethics. C. E. Frost, Duncan.

West Virginia Medical Journal, Wheeling

April

142 Examination of Insane Persons and Their Commitment to Asylums. J. R. Bloss, Huntington.
143 Surgical Treatment of Goiter. J. Schwinn, Wheeling.
144 Cholecystitis and Cholelithiasis. R. H. Edmondson, Morgantown.
145 Bronchopneumonia in Children. F. C. Abbott, Piedmont.

May

146 *Gastric Ulcer. C. R. Jones, Pittsburg, Pa.
147 Cardiac Asthma, Cheyne-Stokes Respiration, Bradycardia, Adams-Stokes Syndrome. L. D. Wilson, Wheeling.
148 Autointoxications and Nervous and Mental Diseases. G. H. Benton, Chester.
149 The Business Side of the Profession. W. H. Sharp, Parkersburg.
150 Diffuse Suppurative Peritonitis—The Fowler-Murphy Treatment. A. M. Burt, Elkins.

146. **Gastric Ulcer.**—*Jones reports* a few out of 66 consecutive cases of gastric ulcer treated during the last four years with the following results: Males, 19; females, 47; history of hematemesis, 11; hemorrhage during treatment, 3; rest cure, 51; ambulatory treatment, 15; recovery, 50; improved, 16; or approximately 75 per cent. and 25 per cent., respectively; no deaths. He controverts the modern tendency to advise gastroenterostomy as a routine measure in uncomplicated gastric ulcer. He considers that surgical interference of any kind has no place in the treatment of uncomplicated gastric ulcer. He has followed cases in which gastroenterostomy has been done and believes that the complications which may be charged entirely to the operative interference are far greater than those which naturally arise in cases of gastric ulcer undergoing a rational medical or dietary treatment. He appeals to the universally satisfactory results of medical treatment obtained by Von Leube and others in support of this position.

St. Paul Medical Journal

May

151 *Stenosis of the Pylorus in Infancy. C. L. Scudder, Boston.
152 *The Hygienic Element in the Treatment of Osseous Tuberculosis. C. F. Painter, Boston.
153 Conduct of Difficult and Abnormal Presentations. H. C. Johnson, St. Paul.

151. **Stenosis of the Pylorus.**—Scudder gives a general consideration of this subject, both from the literature and his own personal observations. He briefly records 12 cases, 5 of his own, and 7 from the literature, in each of which a posterior gastrojejunostomy was done, with the result that the babies recovered from the starvation caused by obstruction, increased properly in weight, are normal in height, and have maintained good health. These clinical observations appear to Scudder to demonstrate, that in children with a benign stenosis of the pylorus and otherwise without disease, gastrojejunostomy does not interfere with nutrition or with physiologic or anatomic development. Is it conceivable, he asks, that these children could live for years and develop into strong healthy individuals if the operation seriously interfered with metabolism?

152. **Osseous Tuberculosis.**—Painter bases his paper on the observations of a series of cases, admitted to the institution where they were studied for the express purpose of trying the effect of hygienic treatment exclusively, or as nearly so as seemed safe. Some of the patients were well advanced in the disease on admission. The figures offered by Painter go to emphasize the fact that tuberculous osseous foci situated elsewhere in the body are frequently complicated by lesions in the internal organs, and, whether the association be that of cause or effect, the consequences to the patient are those of a constitutional disease. Constitutional treatment, therefore, should play an important part in the management of tuberculous lesions, the most conspicuous manifestations of which may be in the osseous system. A readjustment of the values given to different features of treatment now in use is required. While a certain amount of apparatus is unquestionably necessary and desirable, its employment in the treatment of joint lesions should be so regulated that a minimal amount of such impairment of function may result, and it should be employed only so long as the patient requires the protection of the splint to avoid pain, prevent incorrectible deformity, or lessen the likelihood of suppuration.

Texas State Journal of Medicine, Fort Worth

May

154 *Retrodisplacements of the Uterus. W. Keiller, Galveston.
155 Chronic Interstitial Nephritis with Death from Uremia. S. B. Kirkpatrick, Waco.
156 Nasal Stenosis. D. A. Atkinson, Dallas.
157 Treatment of Tuberculous Joints from the Standpoint of the General Practitioner. G. E. Adams, Fort Worth.

154. **Retrodisplacement of Uterus.**—Keiller studies this subject from an anatomic standpoint. He calls special attention to the uterosacral ligament, and to the reflexion of the peritoneum from the side of the cervix to the side of the rectum, termed the rectouterine fold. He points out that in addition to the sheet of peritoneum there is a deeper fibrous sheet which passes from the sacrum in the region of the anterior sacral foramina to the vagina and cervix uteri, of which he has found no description. Its function appears to be to carry branches of the hypogastric plexus of the sympathetic and the third and fourth sacral nerves to the cervix uteri and the vagina. In some cases its uterine attachment receives a muscular band from the cervix uteri. Keiller regards this sheet of fascia as the main constituent of the uterosacral ligament and an important, if not the main support of the cervix uteri, and posterolateral fornix vaginæ. Repeated examinations to determine the cause of the prominent ridge in the peritoneum called the uterorectal fold has invariably shown it to be due to the fourth sacral nerve and vaginal branches of the internal iliac vessel. The man who shortens that fold by stitches, by either vaginal or abdominal route does so at great risk of including the visceral branches of the fourth sacral nerve or of wounding important blood vessels.

Washington Medical Annals

May

158 Smallpox as I have Seen it in the District of Columbia. L. Eliot, Washington.
159 Exophoria, its Symptoms, Significance and Treatment. O. Wilkinson, Washington.
160 Review in Obstetrics. A. F. A. King, Washington.
161 Lumbricoid Worm in Ovarian Abscess. H. D. Fry, Washington.
162 Acute Yellow Atrophy of Liver. D. P. Hickling, Washington.
163 Endothelioma of the Brain. E. M. Hasbrouck, Washington.

Women's Medical Journal, Toledo, O.

April

164 *Results in the Surgical Treatment of Cancer of the Uterus. E. B. Everitt, Philadelphia.
165 Early Microscopic Changes in Carcinoma of the Uterus. A. W. Williams, New York.
166 Cases of Inoperable Uterine Carcinoma. M. D. Rushmore, New York.
167 Diseases of the Accessory Sinuses of the Nose, with Demonstration of Specimens, X-Ray Plates, Drawings, Photographs and Transilluminating Apparatus. I. D. Kerr, Boston.

164. **Cancer of the Uterus.**—Everitt gives a brief historical review of the operative treatment and refers to the work of the committee of the American Medical Association. But she adds that any mention of the question of operability leads us at once into confusion, for undoubtedly to-day many mistake the possibility of operation at any hazard for highly probable operative cure. A considerable step will have been taken toward the desired eradication from the popular mind of the idea that cancer is an incurable disease when operators can be restrained from undertaking unwarranted procedures in extensive cases, whereby the mortality and morbidity of cancer operations are greatly increased, and some of our most valuable measures are brought consequently into disrepute. A notable proportion of the difficulties encountered in operating for cancer of the uterus are due to attempts to enucleate embedded ureters, to separate adherent bladder or bowel, or to excise involved portions of these viscera. One can hardly contemplate with any degree of patience the extensive mutilating operations falsely undertaken in the name of medical science, since a little application of the golden rule would forbid the inevitable making of the last state of the women worse than the first.

Southern Medical Journal, Nashville

April

168 *Flap Sliding Operation for Rectovaginal Fistula, Leaving Perineum and Sphincter Muscle Intact. G. H. Noble, Atlanta, Ga.
169 Tuberculosis of Bones and Joints. E. H. Bradford, Boston.
170 *Diagnosis of Tuberculosis Apart from Physical Signs. W. A. Oughterson, Nashville.
171 *Epidemic Cerebrospinal Meningitis. W. M. McCabe, Nashville.
172 *Transfusion of Blood as a Therapeutic Agent with Report of Transfusion in a Case of Pellagra. H. P. Cole, Mobile, Ala.
173 Irrigation of the Aqueous Chamber for the Removal of Remaining Cortex. H. Wood, Nashville.
174 *Vesicouterine Fistula and Loss of the Function of the Vesical and Urethral Sphincter Muscles, Both Conditions Successfully Operated on. R. S. Hill, Montgomery, Ala.
175 Importance of the Early Treatment of Cholecystitis. C. M. Rakestraw, Savannah, Ga.
176 Suggestions in Treatment of the Drug Habit. W. S. Robinson, Nashville, Ark.
177 Pathology and Treatment of Gonorrhea in the Female. E. C. de Moss, Nashville.
178 Operative Relief of Intestinal Obstruction. F. G. DuBose, Selma, Ala.

168. **Rectovaginal Fistula and Fistula-in-Ano.**—Noble reports two simple operations, the first for the relief of rectovaginal fistula, in the lower end of the vagina when the sphincter muscle and perineum are intact; the second for excision of a fistula-in-ano without cutting the sphincter muscle. Use is made of the principle, presented by the author some years ago, of making a flap of the anterior wall of the rectum and drawing it externally to the anus in cases of complete laceration of the perineum. Both operations have proved successful in the author's hands. The article is illustrated.

170. **Diagnosis of Tuberculosis.**—Oughterson discusses detection of bacilli in the sputum and the various now well-known reactions to tuberculin.

171. **Epidemic Cerebrospinal Meningitis.**—McCabe, seeing that tuberculous meningitis is the one with which the diagnosis of epidemic cerebrospinal meningitis is liable to be confounded, makes the following differentiation:

1. In the epidemic form the onset is sudden, while in the tuberculous type it is slow.
2. Temperature, eyes, and pulse are about the same in each disease. The temperature in the tuberculous variety may correspond more nearly to the tuberculous type of fever.
3. Neck symptoms, Kernig's sign; spasm of the extremities and paralysis, are more marked in the epdemic form.
4. Cerebral pressure, as shown by the fontanelles, is more marked in the epidemic type.
5. There is a high leucocyte count in the epidemic type, while there is a low count in the tuberculous variety.
6. We have the history of an epidemic variety, and a history of tuberculosis in the tuberculous form.
7. In the epidemic variety the cerebrospinal fluid is turbid and contains polymorphonuclear leucocytes in excess, and the meningococcus. In the tuberculous type the fluid is clear and contains lymphocytes in excess and the tubercle bacilli.

172. **Transfusion of Blood.**—Cole reports a case of pellagra successfully treated by transfusion. He gives a historical résumé of the subject, describes the present technic of arteriovenous transfusion, discusses the contraindications, their detection and avoidance, the method of cell protection, and deduces indications for transfusion in the extracellular and endotoxic groups of diseases, respectively.

174. **Vesicouterine Fistula.**—Hill reports the case of a woman who, one hour after completion of labor (which had lasted eighteen hours, a fully developed child with normal presentation being born dead), felt an intense desire to

urinate, which was followed by a tremendous gush of water from the vagina. From this time on, the urine passed continually and entirely through the cervix uteri. Vesicouterine fistula was diagnosed. Hill saw her six weeks later. Through a T-shaped incision in front of the cervix uteri, he closed with catgut suture the openings into the bladder and uterus, which were about the size of the end of the index finger. Union was perfect, but from the continuation of the urinary incontinence, the vesical and urethral sphincters lost their function. She returned home, but returned about six months later in the same condition, but with a three months' pregnancy to complicate matters. The following technic, which, so far as Hill knows, is original, was used: With a metal sound in the urethra as a guide, a median incision was made through the vaginal mucosa from a point one inch on the bladder wall to the meatus urinarius, and then around this orifice. The mucosa was dissected from the underlying structures to the extent of an inch or more, transverse measurement. The sound in the urethra was then changed for one of smaller size. Commencing at the bladder end of the denudation, the muscular structures were folded in or brought together with a continuous catgut suture passed transversely, but never deep enough to include the vesical or urethral mucosa. As the gut was made taut after each passage of the needle, the sound was drawn from its grasp. The vaginal mucosa was next trimmed and made to fit snugly over the underlying tissue and held in position with silkworm-gut sutures, some of which were carried through the muscular tissues, reinforcing the catgut sutures. The patient was catheterized with a small soft rubber catheter every four or six hours. Hill is opposed to leaving an instrument in the urethra after this operation, and suggests the advisability of establishing vesicovaginal or even suprapubic drainage in order not to disturb the parts until firm union is established. The extent of the dissection is to be regulated by the condition found in the individual case. Furthermore, if any one part of the muscular wall—for instance, either of the sphincter muscles—appears more injured than the rest, a special suture of catgut should be used to repair it.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London

May 1

1 *Duty of the Medical Profession in the Prevention of National Deterioration. W. Coates.
2 Fistula Between the Stomach and Bile Passages. A. W. M. Robson.
3 Unusual Case of Appendix Abscess Due to the Pneumococcus and *Bacillus Coli Communis*. E. Harrison, and E. Turton.
4 *Indications for Nephropexy. W. Billington.
5 Lipoma in the Site of a Femoral Hernia. C. J. Patten.
6 Bilateral Nephrolithotomy. J. Clay.
7 Removal of a Large Varix of the Orbit. Sir W. J. Collins.
8 *Application of Continuous Suction in Surgery. H. T. Herring.
9 Fatal Case of Lead Poisoning Due to Diachylon. F. S. Heaney.

1. National Degeneration.—Coates discusses the question of national physical deterioration and insists on the duty of the medical profession to take part in arresting it. He urges increased power to education authorities for systematic inspection of school children, and cooperation between the medical profession and educationists. He discusses the value of judicious physical exercise and the provision of public playing fields, the diminishing birth rate and marriage, and urges the taxing of every bachelor over 30, and the giving of privileges for healthy families. He reviews the effect of mentally defective children on race decay and also that of overcrowding and housing and the planning of towns. He urges support of the various health societies that aim to improve the condition of the people and cites Sweden as demonstrating what can be done by a national effort to check race degeneration. He discusses the evil effects of impurity on stamina and the effect of venereal disease on the decay of the race, and in this regard urges a better equipping of young practitioners to grapple with the difficult and interesting problems connected with these complaints. Finally he discusses the effect of universal military service on the stamina of the race, and insists on the immense advantage that would accrue if a system of universal military training were enforced. Coates has watched over and over again the effect on recruits of their first three months' service; it has been marvelous. The lank, ungainly, casual, ill-developed loafer becomes an alert, strong, intelligent, orderly, self-respecting man.

4. Nephropexy.—Billington summarizes his paper—in which he discusses three groups of movable kidney, the predominant symptom in which is respectively local pain, digestive trouble, or spinal and cerebral neurasthenia—as follows:

1. Nephropexy is a safe and satisfactory surgical procedure.
2. Renal mobility alone is not an indication for operation.
3. Local pains of sufficient severity to diminish working efficiency are an indication for operation.
4. Chronic functional disturbance of the digestive system may be caused by movable kidney. Such cases often resist all kinds of general and medicinal treatment, and are greatly benefited by nephropexy.
5. Nephropexy is indicated in progressive spinal and cerebral neurasthenia occurring in association with movable kidney, when other measures have failed to cure or improvement is followed by rapid relapse.
6. Nephropexy is indicated when movable kidney is associated with insanity.

8. Continuous Suction in Surgery.—Herring advocates the use of continuous suction as opposed to intermittent aspiration, as a means of removing blood during operation and of subsequently draining wounds and withdrawing secretions, especially after cystotomy. He describes a portable apparatus which can be used in any place, and will easily maintain a continuous negative pressure without much attention.

Lancet, London

May 1

10 Rheumatic Fever and Valvular Disease. N. Moore.
11 *Removal of Tumors of the Large Intestine. A. E. J. Barker.
12 *When to Operate for Enlarged Prostate. P. J. Freyer.
13 Discrimination of Unrecognized Diseases. A Disease of Overcrowding in Ships, especially at Malta. W. E. Home.
14 Fatal Case of Splenomegalic Polycythemia (Erythremia). W. F. Umney.
15 Adenoids, Nocturnal Incontinence, and the Thyroid. L. Williams.
16 Streptococcal Pericarditis and Colitis Following Tonsillitis. J. S. Pearson.
17 Simple Method for the Sterile Collection of Blood. H. W. Bayly.
18 The Charitable Dispensaries in the Punjab. D. F. Keegan.

11. Tumors of the Large Intestine.—Barker says that the tumors with which we have to contend in the large intestine are almost invariably columnar epitheliomata of varying degrees of malignancy, slow growing, as a rule, and with but a moderate tendency to invade the lymphatic glands or generalize in other parts of the system. The whole question of safe removal of such masses is influenced more by the presence or absence of associated obstruction than by anything else. If there is but little or no obstruction to the passage of feces through the affected part, the removal of a segment of the bowel is, to a large extent, merely a question of skill and accuracy of technic. But if obstruction is present great judgment is necessary as to whether we shall first relieve the overloaded gut by making an artificial anus for a few weeks' preliminary drainage, or at once proceed to remove the tumor and unite the divided ends. The first course is usually best, on account of the technical difficulty of dealing with a bowel greatly distended with feces above a constriction of the danger of soiling the peritoneum and wound, the difficulty of suturing after excision—which may sometimes be avoided by lateral anastomosis—and the danger of giving way of the stitches, owing to the paralyzed and sodden conditions of the bowel, proximal to a bad obstruction. It is a better and safer rule to make a provisional drain opening in the upper bowel and allow the gut to recover in a couple of weeks before attempting a junction. A careful study of the history and course of each case, and close examination of the abdomen to determine whether or not the bowel is likely to be loaded with liquid feces, should precede any operative undertaking. Barker condemns the preoperative administration of purgatives in cases low down, but considers enemata, repeated as often as necessary, desirable—not, however, just before operation. He then describes cases to illustrate his technic under varying conditions. He discusses the comparative merits of

the dorsal methods, Kraske's operation, and the combined method.

12. **Operation for Enlarged Prostate.**—Freyer analyzes his statistics in 600 cases of his operation for total enucleation of the prostate, in patients varying between 48 and 89 years with an average age of 68½ years. The majority had been entirely dependent on the catheter for very many years. Nearly all were broken in health, most of them subjects of grave complications, many apparently dying. In the 600 cases there were 37 deaths, in periods ranging from 6 hours to 37 days after the operation, or a mortality of 6.15 per cent. The mortality has been steadily decreasing from 10 per cent. in the first 100 cases to 4 per cent. in the last. The causes of death were uremic symptoms due to chronic kidney disease, 16; heart failure, 6; septicemia, 2; shock, 3; exhaustion (kidneys much diseased), 1; mania (hereditary in 1), 2; malignant disease of liver, 2; heat stroke, 1; pneumonia, 1; acute bronchitis, 1; pulmonary embolism, 1; and cerebral hemorrhage with paralysis, 1. Though all these deaths are accepted in connection with the operation, in not more than half the number can the fatal result be attributed thereto, the remaining deaths being due to disease incident to old age and unconnected with the operation. In 108 cases vesical calculi were removed at the same time, but all the deaths in these cases are accepted in connection with the prostatectomy, none being put down to the suprapubic lithotomy involved. Freyer reports on his first two patients, now aged, respectively, 75 and 79 years, over 8 years having elapsed since the operation. Their sufferings were severe, their life entirely dependent on the catheter prior to operation. Since operation no instrument of any kind has been employed, there is perfect freedom from urinary symptoms, they are in excellent health, and sexual power has been regained.

Medical Press and Circular, London

April 28

19 Renal Calculus (concluded). A. Fullerton.
20 Gallstones in Gall Bladder, Cystic Duct, Common Duct, and Hepatic Ducts, in a Girl of Seventeen. T. Carwardine.
21 Oral Bacteria and Acquired Immunity to Disease. J. S. Wallace.
22 The Provident Dispensary. G. Crichton.

Clinical Journal, London

April 28

23 *Diagnosis and Treatment of Pus Formation in Appendicitis. E. M. Corner.
24 *Red Degeneration of Uterine Fibromyomata. F. E. Taylor.
25 Autoinoculation Versus Heteroinoculation in Treatment of Established Infection (concluded). E. C. Hort.

23. **Suppuration in Appendicitis.**—This article is similar to, and the conclusions are identical with those of an article by the same author in the *Medical Press and Circular*, Dec. 9, 1908; abstracted in THE JOURNAL, Jan. 9, 1909, p. 170.

24. **Red Degeneration of Uterine Fibromyomata.**—Taylor concludes that red degeneration of uterine fibromyomata is an aseptic necrobiosis of the tumor cells, associated with a diffuse staining of the tissues with hemoglobin, due to some local disturbance of nutrition in which pregnancy often, but by no means invariably plays a part.

Journal of Obstetrics and Gynecology, London

April

26 *Pathology of the Red Degeneration of Uterine Myomata. J. L. Smith, and W. F. Shaw.
27 *Menstruation and Menorrhagia. F. E. Willey.

26. **Red Degeneration of Uterine Myomata.**—Smith and Shaw arrive at the following conclusions, on the basis of three cases by A. Donald, one by W. K. Walls, and one by A. W. Lea:

1. The chief change in "red degeneration" of fibroids consists in thrombosis of the bloodvessels
2. This thrombosis and red coloration may commence at the periphery of the tumor.
3. The tumors are also in a state of degeneration as evidenced by a homogeneous material separating the muscle bundles in many places
4. The tumors contain fat and fat crystals, probably derived from the breaking up of the muscle bundles.
5. The tumors are liable to become infected by septic organisms and so to give rise to acute toxic symptoms.
6. Pregnancy is probably a predisposing factor in the causation of this condition.

27. **Menstruation and Menorrhagia.**—Willey says that we may still regard the monthly cycle as a preparation of the uterus for the development of an impregnated ovum, but we must realize that the important physiologic requirement is an efficient blood supply to the uterine musculature. Three points are important: 1. Many capillary fissures are closed during the intermenstrual period and become filled with blood and act as part of the general vascular system during menstruation and pregnancy. 2. The uterus increases in size during menstruation. 3. Besides contractility, uterine muscle possesses great possibility of hypertrophy. The monthly cycle is a vasomotor change of uncertain origin, but dependent on ovarian integrity, whereby the uterine wall is richly supplied with blood in preparation for hypertrophy in presence of an impregnated ovum. When no pregnancy occurs the increased blood supply escapes by rupture of capillaries and diapedesis of corpuscle, with possibly some slight destruction of surface epithelium. If this view of menstruation is true the endometrium plays a passive and secondary part at the monthly cycle, and menorrhagia should direct attention to the blood supply of the muscular wall, rather than to the endometrium. Various observations in reference to causation of congestion of the uterus and inefficient action of uterine muscle which lend support to this view are discussed. From these considerations Willey concludes that in menorrhagia without physical signs the aim should be (1) to relieve undue congestion—pessary or operation for misplacement, treatment of constipation and general conditions, etc.; (2) to eliminate sources of poison to the uterine muscle—lead or phosphorus poisoning, alcoholism, etc.; (3) to improve the general muscular tone of the patient by regular hours, simple nutritious food, gradually increasing outdoor exercise, Swedish movements, etc.—exercises of the arms and upper part of the body are often useful to relieve uterine congestion; (4) to assist the action of uterine muscle directly by suitable drugs, e. g., hydrastis or the cotarnin salts. Massage to the uterus, she considers harmful by directing attention to the pelvic organs. Curetting is indicated in many cases for diagnostic purposes.

Quarterly Journal of Medicine, London

April

28 Bronchiolectasis in Children. E. Leach.
29 Vasodilators in High Blood Pressure. E. Matthew.
30 *Etiology of Endemic Goiter. R. McCarrison.
31 Infective Endocarditis. T. J. Horder.
32 Acidosis. E. I. Spriggs.

30. **Goiter.**—McCarrison reports experimental investigations as follows:

1. The experimental administration to man of suspended matter, separated by infiltration from goiter-producing waters.
2. The experimental administration to man of boiled suspended matter, separated by filtration from goiter-producing waters.
3. The administration to goitrous individuals of intestinal antiseptics, notably thymol.
4. Experiments on monkeys to test the possibility of the spread of the disease by the feces of sufferers from it.
5. The microscopic examination of the feces of goitrous individuals.

McCarrison sums up the results of his researches in the following terms:

1. Goiter can be experimentally produced in man by the administration of the mater in suspension separated by infiltration from waters which are known to be goiter producing.
2. Goiter can not be so produced when the suspended matter is boiled.
3. The disease is due, therefore, not to the mineral but to the living component of the suspended matter, in other words to a living organism of disease.
4. The incubation period of experimentally produced goiter is from thirteen to fifteen days.
5. Goiter can be cured by the administration of intestinal antiseptics. It is probable, therefore, that the organism which is the cause of the disease is parasitic in the human intestine.
6. The feces of most cases of goiter in Gilgit show a plentiful amebic infection, but whether the disease is due to this infection has not been determined.

Glasgow Medical Journal

April

33 Recent Researches on Immunity, Especially in Relation to Diagnosis and Treatment. R. Muir.
34 *Cerebral Physiology and the Education of Abnormal Children (concluded). J. K. Love.

34. **Education of Abnormal Children.**—Love discusses the cases of Laura Bridgman and Helen Keller and gives a short

study of aphasia with the related conditions of word deafness and word blindness, which not only helps to the understanding of the mechanism of speech, but throws light on the management of a small class of extremely difficult, but also extremely important cases among backward children, as well as helping in the understanding of the difficulties of the deaf and blind. Love lays down the following general principles:

1. It is useless hammering along a ruined tract or along a sound tract toward a ruined center, in the hope of imparting knowledge to a really deaf and blind child. It is better to use a circuitous, though less used route.
2. When the remains of sight and hearing are considerable—when in the deaf they serve for the discovery of vowels, consonants, and words; in the blind, for what under favorable conditions of light, etc., is written on a book or a blackboard—these should be used to the utmost.
3. When a circuitous route is necessary, education should be directed so that Broca's center, the hereditary center for the memory of spoken words, is used.
4. When a boy is clever with his hands and good in his games, when the difficulty is chiefly with his acquisition of language, word-deafness and word-blindness should be sought for.
5. In the teaching of the aphasic child who is not mentally deficient, Broca's convolution on the right side, unless the defect is bilateral, may be made to take up the work of the hereditary speech center of the left side. When failure shows that the defect is probably bilateral, education may proceed by the help of writing, and the manual alphabet.
6. Mentally deficient children offer a different problem of the educator. The great need of the moment is to recognize their limitations.

Having due regard to physiologic indications present, the teacher should be left as free as possible in selecting the method and ordering the education of the abnormal child. The author, however, lays down the following physiologic indications with regard to the education of the orally taught deaf:

(a) As signs are used very extensively in the education of the hearing child—during his first and second years of life—there is no physiologic reason for suppressing them at the beginning of the school education of the deaf child. They should be used just as they are with hearing children, and excluded, as in the case of the latter, as soon as the more accurate equivalent has been learnt.
(b) During the early years of school life the acquisition of articulate speech should be the chief business of the deaf child. As soon as may be, a vocabulary of common words should be so thoroughly learnt that its use in speech becomes automatic.
(c) In the education of the deaf, drawing should follow speech and precede writing.
(d) Until speech has become automatic no finger-spelling should be known to a deaf child. A combined method, in which the combination is that of finger-spelling and speech is, from the physiologic standpoint, to be condemned.
(e) The difficulty of procuring automatic speech in the deaf-born, while necessarily limiting the use of speech by these children, does not mean that it is not worth while teaching them speech.

Archives des Maladies du Cœur, Etc., Paris

April, II, No. 4, pp. 193-256

35 *Reactions on the Part of the Vessels: The Ice Test. (Réactions vasculaires: L'épreuve de la glace.) O. Josué and H. Paillard.
36 *Broncho-esophagoscopy in Diagnosis of Aneurism of the Aorta. Guisez.
37 *Gastric Cancer and Pernicious Anemia. A. Clerc and Gy.

35. Ice Test for Vascular Reactions.—Josué and Paillard have been seeking a test for reactions on the part of the vessels less fatiguing than the tests by severe muscular exertion or extensive application of heat or cold, and claim that their new ice test is a simple and reliable means for ascertaining the functional capacity of the blood vessels. It consists merely in the application of a piece of ice to the bend of the elbow; the patient is reclining with the arm exposed and the palm up, and all the muscles of the arm relaxed. Every two minutes the pulse is counted for a quarter of a minute, after which the arterial pressure is recorded with a mercury sphygmomanometer (the modified Potain apparatus). The pulse and arterial tension are thus recorded three times in turn at intervals of two minutes. After an interval of another two minutes the ice is then placed in the bend of the elbow. The pulse and tension are recorded again the moment the ice is applied and again after two, four and six minutes. After two more minutes the ice is removed, the skin wiped and the pulse and tension are recorded again after two, four and six minutes. The ice must not exert pressure on the arm, which would interfere with the circulation, but must be held. Among 100 persons to whom this test was applied it was easy to distinguish the arteriosclerotics and the tuberculous, as in them the reaction always differed so decidedly from normal. With normal conditions in the arterial system the arterial pressure adapts itself to the influence of the ice and there is no modification in the pressure, but the pulse varies, or the pressure may vary and also the pulse, but always according to Marey's law; namely, that the pulse grows slow as the pressure increases and faster as the pressure diminishes. In case of functional incapacity on the part of the vessels the pulse does not vary, but the pressure fluctuates, or both fluctuate contrary to the Marey law. This abnormal reaction occurs frequently in arteriosclerosis, especially with involvement of the aorta. The same abnormal reaction occurs also in tuberculosis, but with the difference that the pressure declines progressively during and after the application of the ice, while in arteriosclerosis the pulse remains stable, while the pressure drops, but the latter rises again as the ice is removed. Among the practical points learned by this test is that arteriosclerotic patients presenting normal curves with the ice test have a more favorable prognosis. The test also throws light on the mechanism and action of digitalis in heart disease amenable to digitalis. The ice test further refutes the common assumption that the arterial pressure keeps at a constant level in the individual; on the contrary it is liable to vary within wide limits even from mere emotions. This shows the necessity for caution in ascribing to the effects of treatment any reduction in the pressure observed afterward. Twenty-five typical curves are given to show the reaction in various conditions. One curve shows remarkable fluctuations in the pulse, while the pressure was practically stable; this subject was a healthy girl of 18, very emotional.

36. Bronchoesophagoscopy in Diagnosis of Aneurism of the Aorta.—Guisez gives a number of illustrations to show how an otherwise latent aneurism may compress the trachea or esophagus and induce disturbances, the cause of which can be revealed only by direct visual inspection, disclosing the bulging of the wall into the lumen from the encroachment of the aneurism. He also reports the details of eight cases in which this syndrome was observed, and warns that aneurism of the aorta should be suspected whenever no other cause can be discovered for respiratory or esophageal disturbances.

37. Gastric Cancer and Pernicious Anemia.—Clerc and Gy give over two pages of bibliographic references on the subject of progressive pernicious anemia secondary to cancer, and warn that the presence of the cancer may be unsuspected and the whole syndrome referred to idiopathic progressive pernicious anemia, when in fact the anemia is secondary to an otherwise latent cancer. Neither examination of the blood nor the clinical symptoms nor the theoretical bases distinguish the anemia in these cases from idiopathic, progressive anemia. The latter, they say, is losing ground constantly as a morbid entity, while gaining more and more ground as a syndrome, whether the hemolysis results from the action of a cancer, the bothriocephalus, lead or other poisoning or infection. In the cases secondary to cancer the patients on record have been between 35 and 50, generally men, and the symptoms were those of progressive anemia with nothing to suggest cancer except possibly continuous, occult hemorrhages in the digestive tract. This symptom was pronounced in a personal case recently encountered.

Obstétrique, Paris

March, N. S. II, No. 3, pp. 177-239

38 Treatment of Vesicovaginal Fistulas. (Traitement des fistules vésico-vaginales par le procédé de Bracquehaye.) A. Brindeau.
39 Serodiagnosis of Syphilis in Pregnant Women and New-Born Infants. II. (Syphilis chez la femme enceinte et l'enfant nouveau-né.) P. Bar and R. Daunay.
40 *Goiter and Congestion in the Thyroid in the New-Born. L. Thévenot.

40. Goiter in the New-Born.—Thévenot has found a number of cases of goiter in the new-born on record in the last few years, and here discusses the symptoms liable to be observed. When the enlargement is simple congestion it is liable to disappear within twenty-four hours or may appear intermittently and recurring attacks of dyspnea may be observed. The head of the child should be drawn back to examine the thyroid region for possible goiter in every case of dyspnea in

an infant. In the mild congestions, hot baths, revulsion to the legs, purgatives and ice to the thyroid region may aid in reducing the congestion, supplemented by potassium iodid and the ordinary measures for goiter. Guillermin reported last year that he shelled out of their nests the lobes of the thyroid with his fingers in one case, as for exothyropexy, and thus relieved the dyspnea without the necessity for an operation. If operative treatment is required exothyropexy is the preferable technic, possibly supplemented by an incision in the isthmus to hasten subsidence of the congestion. Pregnant women with goiter should be treated energetically to prevent congenital development of goiter in the fetus. Schmidt began at the fourth month to give iodin treatment to a pregnant woman who had already lost two children from congenital goiter. The mother's goiter diminished and the child was born free from goiter.

Presse Médicale, Paris

April 10, XVII, No. 29, pp. 257-264

41 Kala-Azar and Oriental Sore. (Leishmanioses.) A. Laveran.
42 *Draining the Popliteal Space. (Drainage du creux poplité dans l'ostéomyélite de l'extrémité inférieure du fémur.) P. Hardouin.

April 14, No. 30, pp. 265-272

43 *Traumatic Nephritis with Unilateral Edema. Klippel and E. Chabrol.
44 Course of Gunshot Wounds of the Abdomen. (Evolution en général des plaies pénétrantes de l'abdomen par petits projectiles de guerre.) J. Doche.
45 *Influence of Restricted Localization of Drug on its Action. (Essais d'une nouvelle méthode thérapeutique.) R. de Gaulejac.

42. **Drainage of the Popliteal Space.**—Hardouin shows in several illustrations the danger of compressing the blood vessels in draining the popliteal space and suggests a technic which renders such injury impossible. In osteomyelitis of the lower end of the femur, for example, he trephines the femur through an incision at the junction of the front and inner aspects of the thigh. The opening through the bone slopes downward slightly, and forceps are passed through it and pushed down and outward until they project under the skin in the popliteal space. The skin is incised a little outside of the median line and a fenestrated drain tube is introduced and then seized by the forceps and drawn back with them through the bone and out through the first opening on the opposite side above. By this means the region is thoroughly drained, while the tube passing through the bone does not come at all in contact with the vessels and causes no disturbance of any kind. This was shown in a recent case in which the parents insisted on taking away the patient, a boy of 5, six days after the drain had been introduced. The child was not seen again for three months, when the drain was found still in place and doing no harm, except for a little redness around the openings, which soon disappeared when the drain was removed.

43. **Traumatic Nephritis with Unilateral Edema.**—The case described is interesting from the development of the traumatic nephritis a few days after the accident, the enormous edema of the arm and breast on the injured side, the intense pain in the lumbar region, on the same side, and finally, three weeks after the accident, development of serious nephritis in the previously sound kidney proving fatal in ten days. The assumption of development of nephrotoxins best explains certain features of the case.

45. **Modification of Injected Toxin Restricted to a Certain Area.**—Gaulejac states that his experimental research has confirmed the fact he observed in a case of viper bite; namely, that an otherwise fatal toxin became harmless when it was temporarily localized in a certain limited area. An otherwise fatal dose of cocain could be injected without harm into the cellular tissue of the hind leg of a guinea-pig after applying a constricting band above to induce venous stasis for two hours at least. After removal of the band the signs of toxic action were few and slight. If all the interstitial fluid in the limb below the constriction were withdrawn it was found to contain nearly all the cocain injected, and yet injecting this fluid into another guinea-pig failed to cause any appreciable signs of intoxication. He ascribes this phenomenon of reduced toxicity to three factors: the damming of the circulation, the mechanical influence of the cellular tissue and its power to modify the toxin, and lastly to the antitoxic action of the edema fluids. These three factors vary with the age, the individual and the tissues injected, but they throw light on the mode of action of passive hyperemic treatment, of "fixation abscesses" and on the healing of tuberculous lesions in the lungs during a concomitant bacillary arthritis.

Revue de Chirurgie, Paris

April, XXIX, No. 4, pp. 661-872

46 *Sporotrichosis of the Bones and Joints. (Sporotrichose osseuse et ostéo-articulaire.) De Beurmann, Gougerot and Vaucher.

46. **Sporotrichosis of Bones and Joints.**—The importance of differentiating bone and joint affections caused by the sporotrichum lies mostly in the prognosis and possibility of effectual treatment. The patient is relieved from suspicion of tuberculosis or syphilis, and can be cured by medical treatment without the necessity for surgical intervention. In a case reported by Josset the affection had dragged along for three years undifferentiated, but was cured in a month by iodo-iodid treatment. The lesion had simulated chronic osteomyelitis and four operations had been performed. The lesions have often been taken for gummy tumors. Cultivation of the sporotrichum from the lesions and experimental reproduction of the osteitis confirms the diagnosis. The cultivation of the germs or the sporo-agglutination test is a simple and easy method for differentiating these lesions, and should be instituted in every dubious case of acute, subacute or chronic osteitis. Five typical cases are described in detail and extensive experimental research is reported with illustrations of the manifold lesions that may be induced by the sporotrichum, spontaneously or experimentally.

Berliner klinische Wochenschrift

April 19, XLVI, No. 16, pp. 717-764

47 Tube Casts in Urine free from Albumin and their Relation to Chronic Constipation. (Zylindrurie im eiweissfreien Harn und ihre Beziehungen zur chronischen Obstipation.) Wasserthal.
48 Study of Heart Action with the Electrocardiogram. (Elektrocardiographische Untersuchungen zur Physiologie und Pathologie des Herzschlags.) Strubell.
49 *Method for Determining and Locating Ulcers in Upper Digestive Tract. M. Einhorn.
50 *External Urethrotomy. C. Posner.

April 26, No. 17, pp. 765-812

51 *Protection of Wounds against Infectious Germs from Adjoining Skin. (Schutz der Wunde—bei Verletzungen und Operationen—vor den Infektionskeimen der benachbarten Haut.) F. König.
52 *Pathogenesis and Treatment of Anuria. H. Kümmell. Commenced in No. 16.
53 *Roentgen Examination of Surgical Gastric Lesions. (Röntgenuntersuchungen chirurgischer Magenkrankheiten.) V. Schmieden and F. Härtel. Commenced in No. 15.
54 Resection of Nerve Roots for Spastic Paralysis. (Zwei Fälle von Forster'scher Operation nach spastischen Lähmungen.) Gottstein.
55 *Complement Fixation in Gastric Cancer. (Biologische Untersuchungen über den Magenkrebs.) S. Livierato.

49. The technic described is similar to that summarized in THE JOURNAL, July 4, 1908, page 73.

50. **External Urethrotomy.**—Posner relates a case in which it proved impossible to find the posterior stump of the urethra so as to introduce a sound after external urethrotomy, and the urine flowed over the wound. Further efforts at catheterization were abandoned and very soon some of the urine passed through the urethra, the amount gradually increasing until normal functioning was re-established with only a little aid. Expectant treatment is thus justified in the rare cases in which the posterior stump evades discovery. Always, however, under the assumption that there is no retention of urine, but that it is normally voided, although by an abnormal route.

51. **Disinfection of Field and Adjoining Skin Before Operations.**—König systematically refrains from scrubbing the field of operation and merely paints it and the surrounding skin with tincture of iodin. The alcohol hardens the tissues, holds the bacteria immovable, and has a slight inhibiting action on them while inducing more or less hyperemia in the region, all of which are advantages in surgical work, while the patients

are not annoyed, chilled and depressed as by the usual scrubbing procedures. By thus avoiding danger of chilling, the tendency to postoperative complications on the part of the lungs is reduced. The patient gets his general bath and is shaved long enough beforehand to allow the skin to be thoroughly dry before the iodin is applied. Regions peculiarly sensitive, such as the scrotum and perineum, are not treated with the iodin. The disadvantages of the iodin disinfection are that the field of operation is so discolored that one has to habituate himself to the negro-like aspect to be able to recognize the various tissues. Another disadvantage is that the operation must be done as dry as possible, as fluids wash away the tincture; moist compresses must not be used directly on the painted surface. When the operation is completed he pours a little of the tincture on the line of suture to ensure fine linear scars. He compares this revolutionary passive disinfection of the skin with the experiences with carbolic-acid spray formerly used to disinfect the air in the operating room. It was found that the spray stirred up and mobilized the bacteria, doing more harm than good, and he believes that the scrubbing has the same harmful effect, stirring up the bacteria and washing them into the field and promoting the secretion of the glands, thus bringing germs to the surface which otherwise would slumber peacefully in the depths. To leave them unmolested is the safest course, and he thinks that this is best accomplished by the iodin disinfection of the surface to be operated on.

52. **Anuria.**—Kümmell reviews his experience with anuria at Hamburg and emphasizes the necessity for regarding anuria as a very serious condition, not to be neglected any more than acute ileus or incarceration of a hernia. The patients sometimes experience apparently no ill results; in one of his cases the patient felt perfectly well, notwithstanding four days of total anuria from obstruction by a kidney stone, and was with difficulty persuaded to allow an operation. In one case the anuria persisted for twenty and in another for thirty days, and normal urination was then spontaneously restored. These are the rare exceptions; the anuria, as a rule, entails a comatous uremic state after a phase of subjective freedom from disturbances. Anuria from renal concrements offers a grateful field for treatment when recognized early. If the *x*-rays show the stone to be too large to anticipate its expulsion by the natural routes operative intervention should be advised at once without further waste of time. If not larger than a cherry stone, or if its shape permits the hope of spontaneous expulsion, the ureter should be catheterized in the hope of dislodging the stone or stimulating the ureter to more energetic peristalsis, with or without injection of oil or glycerin through the catheter. Casper succeeded in stimulating the ureter by injecting water into the kidney pelvis on the other side, the reflex peristalsis thus induced becoming so vigorous that the uncatheterized ureter expelled the obstructing stone. Kümmell advises the use of the ureter catheter whenever indicated, but if no effect is promptly realized he would not waste further time on it, but proceed at once to the operation. In case there is obstruction in both kidneys his experience confirms the advisability of operating first on the kidney last obstructed. In case the wrong kidney is exposed, by a mistake in diagnosis, he advises opening up at once the other kidney and removal of the concrements. If the stone is in the ureter and the obstruction is comparatively recent it may be unnecessary to open the kidney, but if the obstruction is of long standing the kidney above is necessarily altered; also if the patient is comatous when first seen the kidney should be incised. In his nine cases of concrement anuria in three patients there was only one kidney in each, and these individuals all died, although one might have been saved by prompt removal of the stone. In all his cases the trouble was so advanced that operative intervention had scarcely any chance. The prospects are less favorable with anuria resulting from disturbances in the circulation; internal measures are indicated here, diuretics, saline infusion, venesection and, in extreme cases, decapsulation of the kidney. He has done decapsulation in 30 cases, with recovery in 10 and great improvement in 15 others. It is indicated, he says, in prolonged chronic nephritis before anuria has developed, and also in acute hemorrhagic nephritis with scanty or no urine voided, especially when it is a sequel of scarlet fever, eclampsia or sepsis. Success was pronounced in all his cases of this kind. Catheterization of the ureters is also liable to induce benefit in these cases. It is liable to set up a reflex secretion which may transform the prognosis even in cases of chronic interstitial nephritis with anuria, as also in inhibition of the kidney functioning by toxic and nervous influences. The irritation of the ureter mucosa by the catheter may stimulate the functioning of both ureter and kidney.

53. **Roentgen Examination of Surgical Stomach Lesions.**—This long communication from Bier's clinic at Berlin is accompanied by 49 illustrations of the Roentgen findings in various cases out of a total of 100 thus examined. Each illustration is accompanied by the clinical history of the patient in question. The findings are recorded on a large uniform diagram of the trunk with blank spaces above for record of anamnesis, palpation, distention, stool, siphonage of the stomach, fasting, and after the test breakfast noting amount, microscopic findings and blood, and, with qualitative reaction, free HCl and lactic acid, and, quantitatively, total acidity and free HCl. A plaster cast is also taken of the stomach in the cases that come to autopsy, which is proving instructive for comparison of the cast of the lumen of the pathologic stomach with the records of the Roentgen findings during life.

55. Abstracted in THE JOURNAL, May 15, page 1633.

Deutsche medizinische Wochenschrift, Berlin

April 22, XXXV, No. 16, pp. 697-744

56 *Strangulation of the Cauda Equina. (Ueber Einklemmung bzw. Strangulation der Cauda Equina.) H. Oppenheim and F. Krause.
57 Localization of Projectiles in the Skull. (Ueber die Ortsbestimmung von Geschossen im Schadel.) H. Braun.
58 Local Anesthesia for Inguinal Hernia. (Technisches zur Ausführung der Lokalanästhesie bei grösseren Leistenhernien.) A. v. Lichtenberg.
59 *Pathogenesis of Nervous Secretory Disturbances of the Stomach. (Zur Pathogenese der nervösen Sekretionsstörungen des Magens.) A. Bickel.
60 *Testing of Functioning of Pancreas. (Zur Funktionsprüfung des Pankreas.) O. Gross.
61 *Syphilis of the Nervous System. (Verschiedene klinische Erscheinungsformen von Lues des Zerebrospinalsystems.) Engelen.
62 *Experimental Cancer Research and Parasitism. (Experimentelle Krebsforschung und Infektionstheorie.) C. Lewin
63 Action of Formaldehyd on Tuberculous Sputum. A. Kaiser.

56. **Strangulation of the Cauda Equina.**—Oppenheim and Krause give an illustrated description of two cases in which severe symptoms of an affection of the cauda equina came on suddenly. As there was nothing to suggest syphilis, a tumor was assumed and an operation revealed some compression by a tumor or protuberance in the bone. But this did not explain the sudden onset of symptoms, and they assume that the tumor had caused no appreciable disturbance until the patient stooped to lift a heavy weight. This had squeezed the fibers up above the point of the compression. As the fibers became loosened they spread a little, after which they were unable to slide back into their place below and the whole bundle of fibers was thus incarcerated, as it were. The operation revealed the cauda roots displaced, sagging and spread apart, above the narrow point in the lumen, this incarceration being favored by the dilatation of the veins accompanying the roots. The trouble is aggravated by the resulting serous meningitis.

59. **Pathogenesis of Nervous Secretory Disturbances in the Stomach.**—Bickel has learned several new facts from research on dogs with a blind pouch made artificially from the fundus of the stomach and separated entirely from the rest of the body except for the arteries and veins. This second stomach has thus no connection with the nervous apparatus except for the minute nerves in the walls of the vessels. This "nerveless stomach" continued to secrete gastric juice of normal composition, and this secretion was stimulated by subcutaneous injection of meat extract or ingestion into the primary stomach of meat, bread or milk, the increased secretion commencing about ten or fifteen minutes after the commencement of the feeding. It is evident that the stomach

like the heart, can continue its functioning even when deprived of all connection with the nervous system outside of the organ. Also that the stimulus for the secreting function is supplied by the food. His experiences have further shown that the "nerveless stomach" displays no tendency to atrophy or impairment of function; the tendency is rather toward hyperfunctioning. His research was undertaken in connection with an address he is preparing for the approaching International Medical Congress on the "Pathology of Secretion and Motility in the Digestive Canal" with special regard to his theory of the stimulation of the juice-producing cells by chemical substances circulating in the blood. This "blood stimulation" of the cell parenchyma is more or less continuous, and is the principal factor in the gastric secretion. The extragastric nervous secretion mechanism studied by Pawlow has merely a regulating function. Bickel's conception explains the importance of dietetic and purely psychic, suggestive treatment of secretory disturbances. It further emphasizes the psychic element in these disturbances and in the effects of medication and of balneologic and dietetic measures, and the possible curative influence of exclusion or stimulation of certain special nerve tracts.

60. **Testing Functioning of Pancreas.**—Gross has applied to the stools the casein test which has been found useful for examination of pure pancreatic juice and commercial trypsin. The technic is simple and the reaction occurs at physiologic temperature. It is based on the fact that casein, readily soluble in an alkali, is promptly precipitated by acetic acid, in contrast to the products digested by it. Examination of the stools in 200 cases revealed the presence of trypsin in every instance in which the digestion was normal, while the findings were constantly negative in a case of cancer of the pancreas and in one of complete occlusion of the common bile duct. In another case differentiated as cirrhosis of the pancreas, the test revealed normal pancreatic functioning and the integrity of the pancreas was confirmed by autopsy. In a case of hour-glass stomach the oil test breakfast indicated lack of normal pancreatic functioning, but the casein test of the stool gave normal findings in regard to tryptic digestion. The combination of these two tests may therefore prove useful in diagnosing hour-glass stomach. The intensity of tryptic digestion varied within wide limits on different diets, but showed very little fluctuation on an identical diet. This tryptic digestion is most pronounced on an albumin diet (lean meat), and was not influenced by concomitant gastrointestinal disturbance.

61. **Syphilis of the Nervous System.**—Engelen describes some atypical cases which throw light on the etiology of certain puzzling disturbances in the cerebrospinal system. In the first the syndrome simulated amyotrophic lateral sclerosis, except that it had been in a stationary stage for twelve years and that there had been pains in the legs at first. There were apparently no syphilitic antecedents but the ophthalmologic findings confirmed his assumption of a possible syphilitic origin previously unsuspected. The patient had wasted a fortune in seeking help from quacks when early appropriate specific treatment would probably have effected a cure years before. In a second case, the symptoms of a spinal cord trouble came twenty-five years after unsuspected syphilitic infection. The clinical picture was dominated by variable root and cord symptoms, pains in the back, neuralgic pains in the legs, and tenderness over the spine, tremor, bladder disturbances and variability of the reflexes. In another similar case the pupil reflex appeared and disappeared suddenly a number of times. These patients were both cured by specific treatment. In another case, the symptoms suggested diffuse basal meningitis plus spinal meningomyelitis, too advanced for relief in a woman of 63.

62. **Parasitic Origin of Cancer.**—In this communication from von Leyden's cancer service at Berlin, Lewin states that the facts observed in regard to the prevalence of cancers in the animals in certain cages and in human beings in certain houses and families can be explained only by assuming a parasitic origin—that the metabolic products of certain parasites are able to stimulate the cells of the new host to malignant proliferation.

Medizinische Klinik, Berlin

April 18, V, No. 16, pp. 567-612

64 *Multiple Acute Periostitis. R. v. Jaksch.
65 *Chronic Intermittent Albuminuria after Infectious Nephritis. H. Eichhorst.
66 *[illegible] Constituents Predisposes Organism to [illegible]mineralization organique.) A. Robin.
67 [illegible] of Nitrogen and Mineral Salts into the Bowel in Health and Disease. (Eigenabscheidung von Stickstoff und Mineralsalzen im Darm.) G. Wallace.
68 Mineral Metabolism in Young Children. (Mineralstoffwechsel im frühen Kindesalter.) L. F. Meyer.
69 Tests of Heart Tonics on Frogs. (Herzmittel im Froschversuch.) H. Freund.
70 Theory of Origin of Species in Modern Geology. (Die Deszendenzlehre in der modernen Geologie.) F. Frech.
71 *Progressive Paralysis from Standpoint of General Practitioner. R. Thomsen.

64. **Multiple Acute Periostitis.**—von Jaksch describes a syndrome which has much in common with acute articular rheumatism and probably has sometimes been confounded with the latter. The typical case reported in detail was in a young housemaid and was characterized by multiple periostitis, enlarged spleen and progressive leucocytosis, with such large proportions of eosinophiles that he examined the muscles for trichinosis. Fever kept up for several weeks; the swelling and pain were localized in the shafts of the bones instead of in the joints, and sodium salicylate not only failed to show the slightest benefit but induced symptoms of intoxication even in small doses. The affection finally subsided spontaneously under local application of Goulard's lead water (diluted solution of subacetate of lead with a little alcohol). The metabolic findings did not show any great disturbance in the metabolism. At one time he assumed certain transient murmurs to be due to concomitant endocarditis, but, as the heart findings became constantly normal thereafter, he now accepts them as fever murmurs. He has previously described a case of this same affection with a chronic, progressive and fatal course, and regards it as a morbid entity distinguished by the eosinophilia, myelocythemia and multiple periostitis, the localization of the swellings and pains throughout the entire extremities and the failure of the usual antirheumatic medication.

65. **Chronic Intermittent Albuminuria as Relic of Infectious Nephritis.**—Eichhorst has observed this intermittent albuminuria in a number of youths and young men and lays stress on psychotherapy to tranquilize the patient and the family, supplemented by careful hygiene and tepid baths, avoiding stimulants and salted and smoked meats, the diet being restricted mainly to milk, vegetables and starchy foods. He never witnessed much benefit from change of climate and none from drugs. Such patients must be careful not to get chilled suddenly, or get wet, and woolen underclothing is advisable. Most of his patients recovered entirely in the course of time, but several years were required in some cases.

66. **Demineralization of Tissues Predisposing to Tuberculosis.**—Robin's views in regard to the deficiency of mineral constituents of the blood and tissues as the basis on which tuberculosis develops have been described in these columns from time to time. He here cites various objections that have been made to this assumption and answers them in detail. He states that while normal blood contains from 8.39 to 9.109 per thousand parts of inorganic matters, the blood in the "pretuberculous" stage and in the early stages of tuberculosis contains only from 6.38 to 7.85 per thousand. The elimination of inorganic matters is also excessive; analysis of the organs of 5 consumptives and of 2 healthy persons succumbing to accidents showed that the proportion of inorganic matters in the lungs of the latter averaged 12.04 while in the tuberculous lung it averaged only 7.9 parts per thousand. On the other hand, in the sound lung in the tuberculous individuals the proportion was 14.27 per thousand. The contrast was still more marked in analysis of the femurs from both classes. Among the practical conclusions drawn is the necessity for energetically combating gastric hyperchlorhydria which promotes this organic demineralization and thus opens the door to tuberculous infection. A further conclusion is the necessity for supplying mineral elements to aid the organism in its struggle against the infection.

71. **Progressive Paralysis in General Practice.**—Thomsen discusses in detail the differentiation of progressive paralysis, especially from neurasthenia, with which it is most often confounded. Progressive paralysis should be suspected, he says, whenever a man between 35 and 45 complains of nervous or hypochondriac disturbances in the absence of a constitutional predisposition or tangible predisposing factors for neurasthenia, especially when there is a history of syphilis and the disturbances have come on gradually. But he warns that paralysis should never be diagnosed without definite physical findings or a convincing anamnesis. Disturbances in speech are peculiarly suggestive as testifying against neurasthenia.

Münchener medizinische Wochenschrift

April 13, LVI, No. 15, pp. 745-792

72 *Fever in Infectious Diseases. (Schädliche und nützliche Wirkungen der Fiebertemperatur bei Infektionskrankheiten.) F. Rolly.
73 *Frequency of Meningitis in Pneumonia. G. Liebermeister.
74 *Siphon and Aspiration in Treatment of Tuberculous Empyema of the Pleura. E. Schmidt.
75 *Treatment of Leucorrhea. (Behandlung des "Ausfluss.") M. Nassauer.
76 Effectual Treatment of Traumatic Ossifying Myositis with Fibrolysin. J. Aizner.
77 *Iron as Substitute for Bismuth in Roentgen Work. (Eisen als Ersatz des Wismut für Röntgenaufnahmen.) K. Taege.
78 *Osteomalacia and the Ovaries. H. Cramer.
79 Tardy Apoplexy from Standpoint of Industrial Insurance. (Tod durch Spätapoplexie als entschädigungspflichtige Unfallfolge anerkannt.) E. Franck.
80 *Combined Arsenic and Tuberculin Treatment. A. Friedmann.
81 *Significance of Urobilin. (Vorkommen und Bedeutung des Urobilins.) W. Hildebrandt. Commenced in No. 14.

April 20, No. 16, pp. 793-840

82 Time Required for Coagulation of Blood. (Zur Frage der Blutgerinnungszeit.) J. Hartmann.
83 Superheated Air in Acute Suppurations in the Hand. (Erfolge der Heissluftbehandlung bei akut eitrigen Entzündungen der Hand.) H. Iselin.
84 Occurrence of Pains on Change of Weather. (Auftreten von Schmerzen bei Witterungswechsel.) L. Miller.
85 Radical Operation for Chronic Empyema of Maxillary Sinus. (Radikaloperation des chronischen Kieferhöhlenempyems.) Aenstoots.
86 Circular Suture of Artery. (Naht der Gefässstümme bei Stichverletzungen der Extremitäten.) M. Grasmann.
87 *Recent Discovery of the Oldest Fossil Man Extant. (Das jüngst entdeckte älteste menschliche Skelett.) L. Reinhardt.

72. **Action of Fever in Infection.**—Rolly remarks that the generally accepted opinion in regard to febrile temperatures is that they are part of the defenses of the organism but that ain injury is connected with them which compels us der some circumstances to strive to reduce the febrile temerature. He then describes experimental research and compares the results with those of others in this line, drawing the conclusion that in infectious diseases there is increased destruction of albumin, both as a result of the high temperature and as a result of the causes inducing the fever. With a temperature under 104 F. the share of the fever in this increased destruction of albumin is comparatively so small as to be negligible. The changes in the corpuscles and in the proportion of hemoglobin are the work of the infectious cause and are not the results of the increased temperature. His experiments showed that the agglutinins were increased in the heated rabbits; the higher temperature favored the production of agglutinins as also of antitoxins and bacteriolysins. On the whole, he concludes, the febrile temperature if not excessive, must be regarded as a process which does much more good than harm. It is a manifestation of the efforts of the organism to neutralize or get rid of the invading bacteria or toxins. Fever under 104 F. should not be combated unless in case of severe disturbances of the central nervous system, such as headaches, stupor or excitement. Antipyretic measures in these cases are not directed against the high temperature so much as against the other symptoms. If antipyretic measures become necessary they should not be too severe, merely tepid baths with mild spongings and possibly a moderate use of antipyretic drugs, never cold baths according to Brand or Liebermeister.

73. **Frequency of Meningitis in Pneumonia.**—Liebermeister states that microscopic examination showed signs of suppurative meningitis in three out of eleven cases of pneumonia in adults. The nervous symptoms were no more pronounced in the meningitis cases than in many without

74. **Drainage of Tuberculous Empyema of the Pleura.**—Schmidt gives an illustrated description of an aspirating apparatus composed of a jar with three tubes in the stopper, one connecting with a catheter introduced into the posterior wall of the thorax, the second tube connected with an air pump and the third with a manometer. When a vacuum is induced in the jar by the air pump, the negative pressure is felt even in the thorax. The connecting tube can be clamped and removed from the connection with the jar so that the negative pressure can be kept up for a long time without discomfort to the patient. This draws out the collapsed lung and proved effectual in the three cases in which the device has been used.

75. **Treatment of Leucorrhea.**—Nassauer deplores the present custom of treating leucorrhea with douches, etc., stating that the same principle should be applied here as to other secreting lesions, that is, to absorb the secretion and keep the surface dry, thus giving the parts a chance to heal. This is accomplished, he says, by dusting with a dry powder, and for this he has found bolus alba the most convenient, inexpensive and effectual. The powder is applied at the same time the walls of the vagina are distended with air, thus smoothing out all the folds and recesses. This he accomplishes with a pear-shaped glass bulb with a reservoir opening into a tube which passes through the glass pear connected with a rubber bulb. The glass bulb closes the entrance to the vagina airtight, and pressure on the rubber bulb fills the vagina with air and at the same time sprays it with the dry powder. He calls this little apparatus a "siccator," and has obtained good results with it in 100 cases. About once a week he orders a cleansing douche followed by the dry powder. His patients included cases of acute gonorrheal affections, senile colpitis, inoperable cancer, etc., and all were much gratified by the results.

77. **Substitute for Bismuth in Roentgen Work.**—Taege refers to Lewin's suggestion to use magnetic oxid of iron instead of bismuth, and confirms its value for Roentgen work, but he points out the objections to it in that it is not carried by druggists in stock, as a rule, and usually requires pulverization. These disadvantages can be avoided, he asserts, by substituting ferric oxid, better known as polishing rouge, which is obtainable everywhere as an exceptionally fine and inexpensive powder. He has taken, himself, 750 grains within a short period without disturbance, to test its harmlessness.

78. **Osteomalacia and the Ovaries.**—Cramer attributes osteomalacia to some metabolic anomaly which occurs more frequently in certain localities and in his district affects animals frequently. The aggravation of the symptoms during the menses and pregnancy is certainly due to the increase in size and augmented secretion of the ovaries. He does not regard the ovaries themselves as directly responsible for the osteomalacia. Besides removal of the ovaries, phosphorus and suprarenal preparations and ovarian antibodies are logically indicated in treatment. In a recent case a iii-para of 27, eight months pregnant, presented symptoms of osteomalacia. Castration was advised but refused. After the childbirth the symptoms subsided, but returned again at the next pregnancy in so severe a form that the ovaries had to be removed. To insure completeness the tubes were resected at the same time. The expected abortion did not occur and seven months later a normal child was delivered. The symptoms of osteomalacia subsided immediately after the castration. During the rest of the pregnancy there were no manifestations from the artificial menopause, but a month after delivery hot flashes were noticed. The ovaries from this woman were transplanted in a girl of 22 with pronounced infantilism. Cramer cites this case of osteomalacia as a striking proof of the fact that the osteomalacia is entirely independent of the development of the fetus, but is influenced by the exaggerated functioning of the ovaries.

80. **Arsenic-Tuberculin Treatment.**—Friedmann writes from Brazil to confirm Mendel's statements in regard to the advantage of combining arsenic with tuberculin. The beneficial effect is marked on the appetite.

81. **Urobilin.**—Hildebrandt discusses the occurrence and importance of urobilin in health and disease and especially its relation to jaundice. He describes a technic for determination of the proportion of the urobilin in the urine, declaring that the clinical examination of the patient which omits this finding is incomplete. Fever in itself never induces urobilinuria, and urobilin disappears from the urine in case the common bile duct becomes obstructed. Urobilinuria occurs from abnormal destruction of blood if the liver is sound, but if there is no other abnormal destruction of blood, urobilinuria always indicates some lesion in the liver and local stasis of bile.

87. Noted in THE JOURNAL, March 13, 1909, page 896.

Wiener klinische Wochenschrift, Vienna

April 15, XXII, No. 15, pp. 515-552

88 Routes of Infection by Tubercle Bacilli, especially in Infancy. (Die Infektionswege der Tuberkulose, insbesondere im Säuglingsalter.) T. Escherich.
89 Serodiagnosis in Scarlet Fever. (Wassermannsche Reaktion bei Scharlach.) R. Fua and H. Koch. Id. (Ueber Komplementbindungsreaktion bei Scharlach.) V. Hecht, M. Lateiner and M. Wilenko.
90 Physical-Dietetic Treatment of Arteriosclerosis. A. Strasser. Commenced in No. 14.

April 22, No. 16, pp. 553-588

91 *Scarlet Fever. (Bakteriologische und serologische Untersuchungen bei Scharlach.) F. Schleissner.
92 *Treatment of Femoral Hernia. (Behandlung der Kruralhernie.) J. Exalto.
93 *Polyserositis. J. Wiczkowski.
94 Isolated Defect of Auricular Septum and Its Clinical Manifestations. (Defekt der Vorhofscheidewand und seine klinischen Erscheinungen.) E. Popper.

91. **Bacteriology of Scarlet Fever.**—Schleissner found streptococci almost in pure cultures on the tonsils in every case of scarlet fever examined in its incipiency before the sore throat had developed. He was also able to cultivate streptococci from the blood in a large proportion of the 73 cases reported, and the presence of antibodies was also unmistakable, reaching the maximum about the tenth day. It seems evident that streptococci are closely connected with the scarlet fever process, and hence that antistreptococcus treatment can not fail to aid in attenuating the disease.

92. **Femoral Hernia.**—Exalto states that of the 134 patients with femoral hernia operated on at von Eiselsberg's clinic at Vienna during 1901-1908, all but 20 were women. Three of the cases reported illustrate the dangers of forcible reduction at home of an incarcerated hernia; in one case an already perforated loop of intestine was thus pushed back and fatal peritonitis resulted. In 2 cases the femoral hernia developed after a radical operation for an inguinal hernia on the same side. This and other experiences suggest, he says, the advisability of operating on the femoral hernia through the inguinal ring if it is unusually large, even if there is no actual inguinal hernia at the time. By suturing the muscles to the horizontal ramus of the pubis the tendency to femoral hernia is most effectually combated while at the same time the danger of development of an inguinal hernia is averted.

93. **Polyserositis.**—Wiczkowski has encountered during the last five years 35 cases of a simultaneous inflammation of several serous membranes, fatal in 4 instances. The polyserositis develops in three stages. In the first there is merely a serous effusion in the pleura, pericardium and peritoneum, but no fever or apparent changes in the internal organs or glands and the patients complain only of general weakness and vague pain in the chest and abdomen. Adhesions form and the condition grows worse under increased temperature, with debility and irregular stools. Exceptionally the condition may improve and the improvement may persist for several years. The third stage is characterized by high fever, cachexia and edema of the feet, and autopsy reveals cheesy degeneration of the lymph glands, parenchymatous degeneration of the internal organs and tubercles disseminated over the serous membranes while the lungs and digestive tract are intact. Treatment can be only by general strengthening measures, forced feeding and possibly injections of some preparation of arsenic, supplemented by early aspiration of the effusion, this latter having a favorable effect on the circulation and nourishment of the regions involved and hastening the development of adhesions which modify favorably the further course of the affection. The negative findings in the heart, lungs and kidneys differentiate the polyserositis from disease in these organs. He emphasizes the constant absence of the usual symptoms of pleurisy or peritonitis, also the simultaneous involvement of all the serous membranes, suggesting some general cause, which he thinks is unmistakably endotoxins generated in some comparatively small tuberculous focus, these endotoxins reaching and irritating the serous membranes. Some old focus in the lymph glands or urogenital apparatus was discovered in all the cases that came to autopsy. This assumption of the etiology explains the benefit from prompt evacuation of the effusion which removes quantities of these endotoxins while favoring production of adhesions. He is convinced that many cases of alleged "pericardiac pseudocirrhosis of the liver" and "chronic hyperplastic perihepatitis" really belong in this class of polyserositis. A case is reported in a footnote which confirms this view: A woman of 28 with effusions and adhesions in the pleura, pericardium and peritoneum, and with enlarged liver but normal temperature was tapped, and after evacuation of the effusion in the peritoneum a tumor was discovered in the pelvis which proved to be a cold abscess following a spondylitic process. The endotoxins generated in this abscess were evidently responsible for the development of the polyserositis.

Zentralblatt für Chirurgie, Leipsic

April 17, XXXVI, No. 16, pp. 553-592

95 *Radical Operation for Inguinal Hernia by Transverse Incision and Raising the Pelvis. (Radikaloperation der Leistenhernien mittels Haut-Fascienquerschnitts und Beckenhochlagerung.) C. Hofmann.

95. **Transverse Incision for Inguinal Hernia, Raising the Pelvis.**—Hofmann ensures with his incision perpendicular to Poupart's ligament that the musculature, deep fascia and peritoneum are incised lengthwise of their fibers. The herniotomy is much facilitated by his practice of raising the pelvis as soon as the hernial sac is mobilized.

Zentralblatt für Gynäkologie, Leipsic

April 17, XXXIII, No. 16, pp. 553-584

96 *Breast Pump. (Eine neue Milchpumpe.) R. T. Jaschke.
97 *Extraperitoneal Cesarean Section. (Extraperitoneale Kaiserschnitte.) H. Freund.

96. **Improved Breast Pump.**—The improvement in the pump, of which an illustrated description is given, consists merely in a "cone valve," a little cone fitting in an opening in the nozzle of the air pump with which suction is applied to the breast. The cone is lifted at will by a spring lever, and thus allows air to enter the glass chamber with which the pump is connected. The breast and nipple recede as air is admitted, but the pump still fits air-tight over the breast. Renewed aspiration with the air pump draws the breast and nipple out again, this intermittent suction and subsidence imitating the natural process of the child's sucking. It is thus possible to empty both breasts completely in from eight to fifteen minutes, so that an infant applied afterward is unable to get any milk. The spring cone valve can be applied to any air pump used for the purpose.

97. **Extraperitoneal Cesarean Section.**—In the two cases reported by Freund he incised the cervix after transverse incision of the abdomen, and was much pleased with the ease and results of this cervical Cesarean section. It is facilitated by the fact that the parietal peritoneum can be readily detached from the abdominal wall, even in the non-pregnant. It is most readily accessible through a transverse incision. The bladder during pregnancy is connected with the uterus only by delicate and loose connective tissue. The peritoneum can thus be easily pushed up and the bladder pushed down or to one side. It is important to turn the uterus from without until the point where the reflection of the peritoneum can be most readily pushed away is brought up for the incision, and the head can be also guided from without to bring it into the incision. He adds that the bladder should not be filled beforehand, and no retractors should be used on the bladder or lips of the wound. The incision in the cervix should be on the median line, and only the suspicious or infected cases require drainage.

Gazzetta degli Ospedali e delle Cliniche, Milan

April 13, XXX, No. 44, pp. 465-472

98 *Treatment of Gangrenous Appendicitis. A. Montini.

April 15, No. 45, pp. 473-480

99 Bismuth Paste for Roentgen Examination of Fistulas. (Sull'esplorazione dei tramiti fistolosi col processo di Beck.) G. Spelta.

98. Marsupialization of Gangrenous Appendix.—Montini found at the laparotomy in the case described an ulcerating and gangrenous appendix with extensive peritonitis in this part of the abdomen. The cecum was involved in the ulceration to such an extent that he felt compelled to refrain from appendicectomy for the time being, and merely drew the appendix outside the abdomen and fastened the wall of the cecum to the lips of the wound all around the implantation of the appendix. By the end of a week the inflammation and tumefaction had subsided to such an extent that the appendix could have been readily resected, but he left it as it seemed to be undergoing a process almost like absorption as the wound healed. The adhesions that formed were sufficient, he thought, to protect the peritoneum against further trouble from the appendix.

Policlinico, Rome

April, XVI, Surgical Section, No. 4, pp. 145-192

100 *Experimental and Histologic Study of Anastomosis of Nerves. P. Alessandrini.

101 *Sarcoma of the Pancreas. F. Ravenna.

100. Anastomosis of Nerves.—Alessandrini's experiments were made on dogs and showed that the ultimate functional results are better in young than in old animals. In the younger dogs he found that complete restitution of function followed implantation of the hypoglossal nerve in the spinal accessory severed where it emerges from the sternomastoid, or in the other hypoglossal or some nerve connected with the brachial plexus. Even when only a few fibers of the hypoglossal had been implanted in a lengthwise buttonhole in the other nerve the functional results were excellent. For the clinic, in case of danger of aspiration pneumonia from paralysis interfering with swallowing, he advises implantation of the hypoglossal in its sound mate, which was easily done in his experiments. An interval of two or three months between the severing of the nerve and its anastomosis did not interfere with the restoration of function, but it was found necessary to resect the enlarged end of the stump.

101. Sarcoma of the Pancreas.—Ravenna gives an illustrated description of two cases of sarcoma of the pancreas, in one of which a suprarenal capsule was imbedded in the depths of the pancreas, the suprarenal capsule on the left side being missing otherwise. This patient was a boy of 15, the other was a man of 50.

Riforma Medica, Naples

April 19, XXV, No. 16, pp. 421-448

102 *Diagnosis of Hypernephroma. (Mezzi diagnostici del cosidetto ipernephroma del rene.) D. Taddei.

103 *Experiment. [illegible] Passage of Micro-organisms through Wall of [illegible] del microorganismi attraverso le pareti [illegible]

102. Diagnosis of Hypernephroma of the Kidney.—As a contribution to the diagnostic measures for the so-called hypernephroma of the kidney, Taddei relates a case in which an intermittent tendency to hematuria was noticed for a few weeks, in a boy of 11, with moderate fever and finally dysuria and retention. A tumor palpated in the kidney was removed and the various tests for hypernephroma were applied but with negative findings except the Croftan iodid-starch test, the Fedoroff test with mydriasis in the frog eye, and the nitrate of silver test. He attributes the positive findings even in these tests to a simple osmotic process or to the nonspecificity of the tests—the iodid-starch test having given equally positive findings in his hands with an adenocarcinoma of the breast.

103. Passage of Micro-Organisms Through the Bladder Wall.—Milone's extensive experimental research has confirmed the assumption that when the bladder walls are sound and the flow of urine normal, micro-organisms are unable to find lodgment and injure the walls and pass through them—all of which is favored, on the other hand, by stagnation of urine

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

Orthopedic Surgery for Practitioners. By Henry Ling Taylor, M.D., Professor of Orthopedic Surgery and Attending Orthopedic Surgeon, New York Post-Graduate Medical School and Hospital. Assisted by Charles Ogilvy, M.D., Adjunct Professor of Orthopedic Surgery New York Post-Graduate Medical School and Hospital, and Fred H. Albee, M.D., Instructor in Orthopedic Surgery, New York Postgraduate Medical School and Hospital. Cloth. Pp. 503, with illustrations. Price, $5.00. New York: D. Appleton & Co., 1909.

Health Education League Pamphlets: No. 16, Sexual Hygiene. By a member of the Massachusetts Medical Society. (20 pages. 4 cts.) No. 17, Health in Labor Camps. By Mrs. E. H. Richards and Peter Roberts Ph.D., Secretary, Industrial Department, International Committee, Y.M.C.A. (10 pages. 3 cts.) No. 18, Tuberculosis. By Edward O. Otis, M.D. (24 pages. 5 cts.) No. 19, When to Call the Physician. By George W. Gay, M.D. (15 pages.) Paper. Boston: Health Education League, 113 Devonshire St.

Die Entstehung und Verbreitung der Tuberkulose im Weiblichen Genitaltracte. Von Dr. Albert Blau, Assistenten der Klinik von Rosthorn in Wien. Paper. Pp. 95. Price, 4 marks. Berlin: S. Karger, 1909.

Etudes Anatomo-Cliniques: Coeur—Vaisseaux—Poumons. Par Le Dr. Raymond Tripier, Professeur à la Faculté de Médecine de Lyon. Paper. Pp. 604, with illustrations. Price, 10 francs. Paris: G. Steinheil, 1909.

Handbuch der Biochemie des Menschen und der Tiere. Von Prof. Dr. Phil. et Med. Carl Oppenheimer, in Berlin. 15th installment. Paper. Pp. 320. Price, 5 marks. Jena: Verlag von Gustav Fischer, 1909.

The Etiology and Nature of Cancerous and Other Growths. By W. T. Gibson, A.R.C.S. Cloth. Pp. 123. Price, 6 shillings, net. London: John Bale, Sons & Danielsson, 1909.

First Annual Report of the San Francisco Association for the Study and Prevention of Tuberculosis. 1908. Paper. San Francisco: 162 Post Street.

The Philosophy of Long Life. By Jean Finot. Transl. by Harry Roberts. Cloth. Pp. 308. Price, $2.50 net. New York: John Lane Co., 1909.

Thirty-first Annual Report of the Department of Public Health, Augusta, Georgia. 1909. Paper. Pp. 74.

New Patents

Recent patents of interest to physicians:

916098. Massage apparatus. L. Bramson, Copenhagen, Denmark.
915833. Operating table. G. R. De Nise, Denver.
915946. Making aldehydes. C. Ellis, White Plains, N. Y., and K. P. McElroy, Washington, D. C.
916143. Disinfector. F. J. Gaus, New York.
915765. Pasteurizing apparatus. H. M. A. Harders, Milwaukee, Wis.
915959. Extracting iodin. E. Herrmann, Paris, France.
915977. Obtaining strong aqueous solutions of creosote. D. Lodigiani, Mexico, Mexico.
916177. Syringe. H. A. Mather, Pocatello, Idaho.
916046. Water-bag. D. Smith, Cotulla, Texas.
915917. Syringe. P. L. Wilbur, New York.
916692. Topical remedy. R. von Foregger, New York.
916864. Bed-pan. A. Henhapl, Superior, Wis.
916566. Ear-drum. A. O. Leonard, New York.
916567. Fresh-air treatment apparatus. L. P. Leonard, St. Cloud, Minn.
916953. Watch for counting the pulse by sound or touch. D. A. Lugrin, New York.
916762. Fumigating apparatus. C. E. McFadden, near Fullerton, Cal.
916611. Sterilizing apparatus. J. Schoettl, Brooklyn.
916900. Electrolytically producing peroxid of hydrogen. G. Teichner, Nuremberg, Germany.
916637. Massage apparatus. K. P. Wallen, Providence, R. I.
917403. Combined blanket and sleeping bag. E. Benger, New York.
917706. Formic-aldehyde-containing composition and making the same. H. S. Blackmore, Mount Vernon, N. Y.
917276. Apparatus for measuring and indicating blood pressure. F. A. Faught, Philadelphia.
917062. Separating casein. R. Head, New York.
917442. Pipette attachment. A. E. Hutchinson, Victor, Colo.
917626. Fumigator. L. S. Livingstone, Johnstown, Pa.
917113. Truss and like surgical appliance. W. F. Offord, Cambridge, Eng.
917151. Deodorizer container. L. R. Rich, Saratoga Springs, N. Y.
917367. Massage instrument. J. W. Scott and D. Tibbals, Granite City, Ill.
917502. Making phosphoric acid and Glauber salt. E. H. Strickler, New York.
917376. Hernia-support. F. J. Stuart, St. Louis.
917694. Combined bandage and dressing. H. Wilson, Conneaut, Ohio.
918472. Thermometer case. M. W. Reed, South Fork, Pa.
917812. Combined abdominal support and truss. L. H. Temme, Cleveland, Ohio.
918234. Syringe. C. F. Welsh, Detroit.
918409. Sterilizer. W. A. Wiley, J. E. Hall and G. F. Hall, Erie, Pa.

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Address

PROBLEMS AND PROCEDURES IN CRANIAL SURGERY*

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The problems of cranial surgery are manifold and the procedures correspondingly diverse. In this age of specialism it falls to the lot of some, whether because of greater opportunities unsought or natural inclination, to acquire greater familiarity with this or that particular field of endeavor. The surgery of the central nervous system, as that of other systems, requires not only a practical knowledge of the technic, but an intimate knowledge of the physiology and pathology of the structures to be dealt with. The successful and intelligent abdominal surgeon not only must have acquired dexterity in the performance of certain operative procedures, but he has familiarized himself with the physiology, normal and perverted, and with the pathologic aspects of the organs under consideration. It is not enough for him to be able to perform a gastroenterostomy, but he must be able to recognize, if not before at least at the time of operation, the conditions which indicate the propriety of such an operation. It is not to be assumed that one who would engage in neurologic surgery must have either the knowledge or the skill of the neurologist in the diagnosis of affections of the nervous system, but he must have a good working knowledge of the functions of the organs he is dealing with and of the naked-eye appearance of the pathologic lesions to which they are subject. Too much stress has been laid in the surgery of all organs and systems on operative technic, important and essential as it is, and not enough on a fundamental knowledge of the physiology and pathology. It is not enough for a surgeon to be able with skill and dexterity to expose the affected region, but when it is exposed he must be able to recognize the precise nature of the lesion with which he is confronted and to decide promptly and intelligently to what extent he is called on to interfere. It is not my purpose to treat the various subjects to be alluded to, either comprehensively or in detail, but to review in very general terms some recent developments in the field of cranial surgery.

TRIGEMINAL NEURALGIA

While one could hardly say that the last chapter of the surgery of trigeminal neuralgia has been written, it may at least be said, without fear of contradiction, that of all the operations on the central nervous system in none has a greater degree of perfection been attained and with none are the results so eminently and enduringly satisfactory. The attempt in recent years to substitute for operations on the ganglion or the sensory root various peripheral procedures is not justified by the results. The peripheral avulsion of Thiersch is the most satisfactory of the minor extracranial procedures, but, no matter how radical the removal of the nerve may seem to be, recurrence or subsequent involvement of other branches is the rule rather than the exception. The more recently advocated therapy of alcohol injections has not as yet given more than transitory relief, as the pain returns on an average within seven months.

The element of danger, so conspicuously dwelt on in many treatises on this subject, no longer justifies the apprehension which still lingers in the minds of the profession. The mortality, often quoted at 22 per cent., may be said now to be a gross exaggeration. In Horsley's series of 120 cases the mortality was 3.3 per cent. This report was made in 1905, and I have no doubt but that even a better showing will be seen in his more recent experiences. In my own series of twenty-seven cases I have lost but one patient—the sixth of the series. There have been no fatalities since 1905 (mortality 3.7 per cent.).

It is not necessary to dwell at length on the technic of the operation on the ganglion or its sensory root; suffice it here to emphasize certain features that seem of greater moment. Speaking only of personal preferences, the operation should be performed with the patient in the sitting posture as a matter of convenience to the operator, as a means of controlling hemorrhage, and as affording the most direct view of the deep-seated structures. The upper branch of the facial nerve must be avoided. The approach to the ganglion is made through an auriculo-temporal opening. This opening, somewhat posterior to the one usually prescribed, is preferred to others because it affords the most direct and shortest route to the sensory root of the ganglion. There is no advantage and some disadvantage in working through too small an opening. An opening 3 to 4 cm. in diameter is none too large and enables the brain to be elevated with less danger of trauma to the temporal lobe. The bone should be rongeured away as far down as the infratemporal ridge, and the middle meningeal artery ligated and divided in every instance, as the point of its convergence from the foramen spinosum is directly between the eye of the operator and the structure he is endeavoring to expose.

Though there is some difference of opinion as to some of the preliminary steps, the final one has provoked the most discussion. It is interesting to see how, chronologically considered, this step has been simplified. At

* An address before the Toronto Academy of Medicine, March 4, 1909.

first it was thought best to remove the ganglion *in toto* and the unsuccessful attempts in the early days were responsible for the so-called recurrences; later on some surgeons regarded removal of only the outer and posterior aspects of the ganglion as sufficient; and, still later, the division of the second and third divisions as

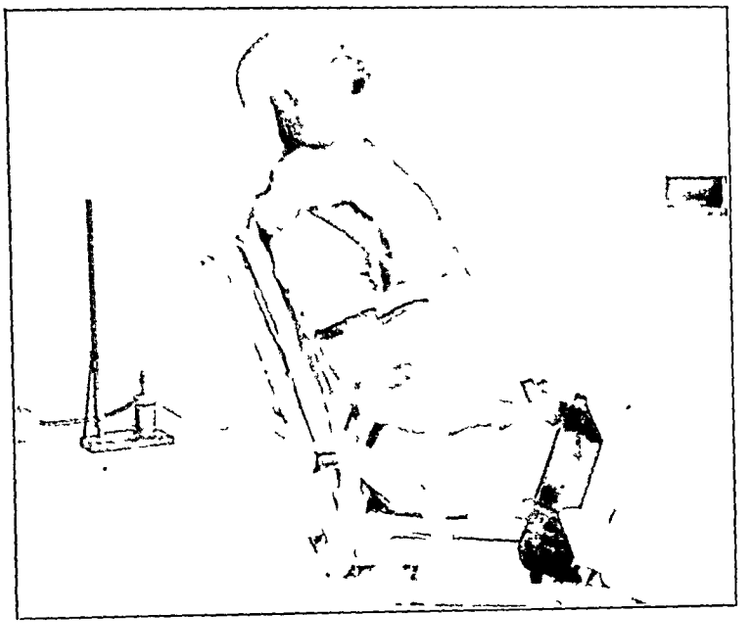

Fig. 1.—Table with special head extension and posture of patient preferred in operations on the Gasserian ganglion and in all craniotomies for pretentorial lesions.

they leave the ganglion, with the interposition of foreign material to prevent regeneration of new tissue. Finally, Spiller proposed the "sensory root" operation, providing it could be proved, as was done at that time by animal experimentation, and subsequently by clinical observations, that, once divided, the root was incapable of regenerating itself. The first operation, performed with the deliberate intention of dealing only with the sensory root, I undertook at Spiller's suggestion in 1901, and from that time to this have modified it only in exceptional instances. It has been truly and aptly called "the physiologic extirpation" of the ganglion and will become, I believe, if it has not already come to be, the operation of choice. Whether the root is divided or avulsed, judging from my results, is a matter of no consequence. Once having grasped the nerve it is quite as easy to avulse as to divide it and the results are equally effectual. I have done both a number of times and have never been able to discover any difference either in the immediate or ultimate effects. Division or avulsion of the sensory root gives just as positive assurance against the recurrence of neuralgic attacks as does the removal of the appendix against the recurrence of appendicitis.

CEREBRAL TRAUMA

Our attention in recent years has been directed to certain phases of cerebral trauma not to be found in earlier classical writings. In the latter we find discussions *in extenso* on the difference between concussion and contusion, elaborate presentations of the mechanics of fractures of the skull and of the effects of injuries by *contrecoup*. The indications for surgical therapy were confined to hemorrhage and depressed fracture and the treatment of contusion and concussion consisted chiefly in the administration of opiates, calomel and the iodids. The work of Cannon on the pathogenesis of cerebral edema and the experimental investigations from Kocher's laboratory on the relation of increased intracranial tension to the circulation has opened up a new field to the practicing surgeon. Leaving out of consideration cases of either local or general compression of the cranial contents, the direct result of hemorrhage or depressed fracture—a group in which the indications for operative intervention are self-evident—there is left a large class, the essential feature of which is the damage to the brain itself. I am referring especially to cases of cerebral edema of traumatic origin, cases in which the function of the vital centers may be destroyed or altogether arrested, either directly by the injuring force or indirectly by circulatory disturbances. Cerebral edema causes increased intracranial tension; this in turn first interferes with the venous circulation, causing passive hyperemia, then with the arterial circulation, causing anemia. These problems in pathologic physiology have all been worked out in the laboratory and we can follow them in certain instances by analogy on the human subjects.

Cases of cerebral contusion with cerebral edema, with or without fracture, may be called border-line cases, because neither active surgical intervention nor invariable palliation can claim them all. Under what circumstances, therefore, is operation to be resorted to—this is a problem of great proportions. I can only allude to a few pertinent facts, and first to the relation of blood pressure to intracranial tension.

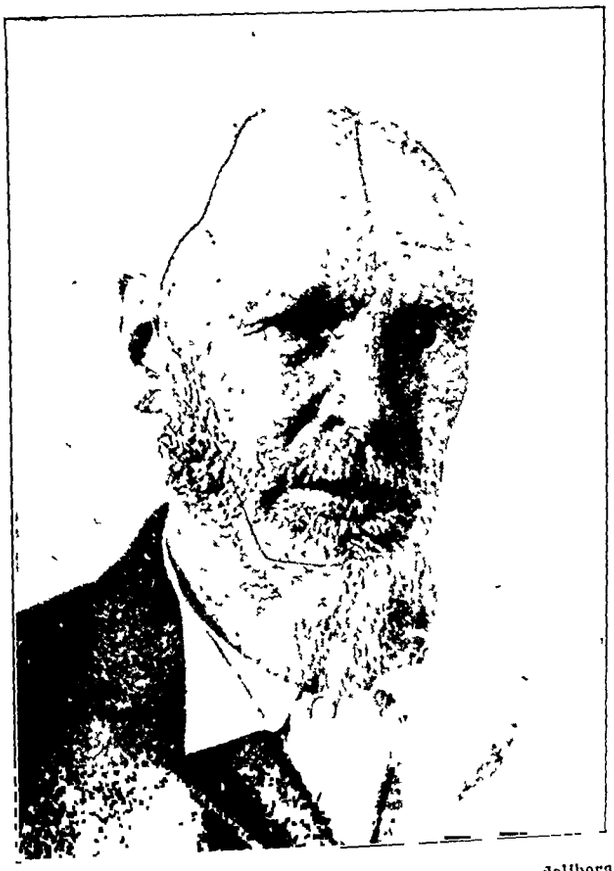

Fig. 2.—The first case in which the sensory root was deliberately divided as a substitute for the extraction of the ganglion; from photograph of patient taken when operation was performed in 1901.

As a result of the obstruction offered the circulation by the increased intracranial tension a comparative rise in the blood pressure has been observed in the laboratory, and this phenomenon has been suggested as an index of the gravity of the condition. But I wish to say quite emphatically that repeated observations on the human subject in cases of intracranial trauma have had, al-

most invariably, negative results; while exceptionally the blood pressure may be more or less elevated, in the great majority it is not, even though the symptoms indicate a very serious intracranial injury and the operation reveals tremendous intracranial tension. The elevation of blood pressure so frequently observed in the experimental laboratory when the cranial contents are me-

Fig 3—Patient shown in Figure 2, from photograph taken in 1908. The region outlined in front of ear only hyperesthetic; the remainder is absolutely anesthetic. There has been no recurrence of the neuralgia.

chanically encroached on is not present under corresponding physical conditions in the living subject. Therefore, as a guide to the grade of intracranial tension or an indication for operative intervention, blood pressure observations with the instruments now available are practically worthless.

Second, as to the relation of papilledema to increased intracranial tension, it has been asserted that papilledema is a more or less constant accompaniment of those cases of intracranial trauma in which there is obstruction to the venous circulations, the stage of *Stauungshyperämie,* which, according to Kocher's scheme, is the first stage of cerebral compression. For the past two years at the University Hospital Dr. G. E. de Schweinitz, the ophthalmic surgeon, has made repeated observations for me on all varieties of serious head injuries and I am privileged by de Schweinitz to say that in only two cases has he been able to detect a papilledema, one of three and one of seven diopters. In other words, papilledema as a manifestation of intracranial tension the result of trauma is the exception, not the rule, and therefore can not be considered of any great moment as a means of diagnosis or as a guide to treatment. The pathogenesis of papilledema is most perplexing. That it is not due solely to such encroachment on the cranial contents as may be brought about experimentally has been borne out by many investigations.

The third point to which I wish to refer has to do with the decompressive operation and its application in cases of serious contusion of the brain, with or without a basal fracture. The decompressive operation recently has been much talked about and frequently practiced for the relief of certain symptoms of brain tumors, internal hydrocephalus and the like. That it has a field in cerebral trauma I am also quite convinced, but in what cases it is indicated there may be some difference of opinion. Thus, for example, the statement has been made[1] that it should be performed invariably in cases of basal fracture because nearly all the symptoms are due to intracranial pressure. According to Cushing, the mortality of basal fractures is 87 per cent. In times past a great many patients died as a result of secondary infection of the meninges, but in our modern management, infection as a factor has been generally eliminated, so that the fatalities now are due to injury to the brain structure, whether it be a contusion, laceration or edema. In the past ten years the mortality in all cases of basal fracture, not including those with fracture of the vault, at the Episcopal Hospital was 59 per cent. That this mortality could be reduced by operating in selected cases would seem more than likely. But, inasmuch as so large a percentage recover spontaneously, routine surgical intervention is obviously unnecessary and therefore unjustifiable. How are we to determine in which cases to interfere? If we attempt to analyze our cases they would seem to fall naturally into three groups.

Group 1.—Those in which damage to the brain has been so great that, decompression or no decompression, the patients die. The fatal tendencies in these cases are easily recognized, and as a rule the patients survive the injury but a few hours. The autopsy reveals laceration and hemorrhage in and about the brain substance. Thus, for example, a patient (No. 2138) aged 60, falls on the pavement and strikes the back of his head; he is

Fig. 4—Patient one week after division of the sensory root; showing the position of flap within the hair line and use of an automobile goggle for protection of the eye

brought to the hospital unconscious, with a slow pulse and deep but stertorous respiration; there is inequality of the pupils and left facial paralysis; complete muscular relaxation. Bloody fluid is removed by lumbar puncture and the blood pressure registers 180 mm. Hg; in a few hours the temperature begins to rise rapidly and the pulse to become accelerated: immediate decompres-

1. Cushing: Johns Hop Bull., February, 1908

sion is done; the brain is found edematous, the pial veins distended, and here and there are small blood clots over the surface; there is little pulsation, either before or after the dura is opened. The course of events is absolutely uninfluenced by the operation, the condition becomes progressively worse, and the patient dies a few hours later.

Group 2.—Those in which the symptoms at no time appear serious enough to threaten life. There may be, as in a case I have in mind, complete unconsciousness or deep somnolence, slow pulse and respiration, perhaps a papilledema and evidence of injury to some of the cranial nerves, as the oculomotor, abducens or facialis. The symptoms persist for several days and then show signs of abatement and the patient recovers. To illustrate this group I may cite a case with all the symptoms of basal fracture. Though unconscious for several days, the patient's condition was at no time serious; about the tenth day, when he had recovered sufficiently to make examination possible, a paralysis of one arm

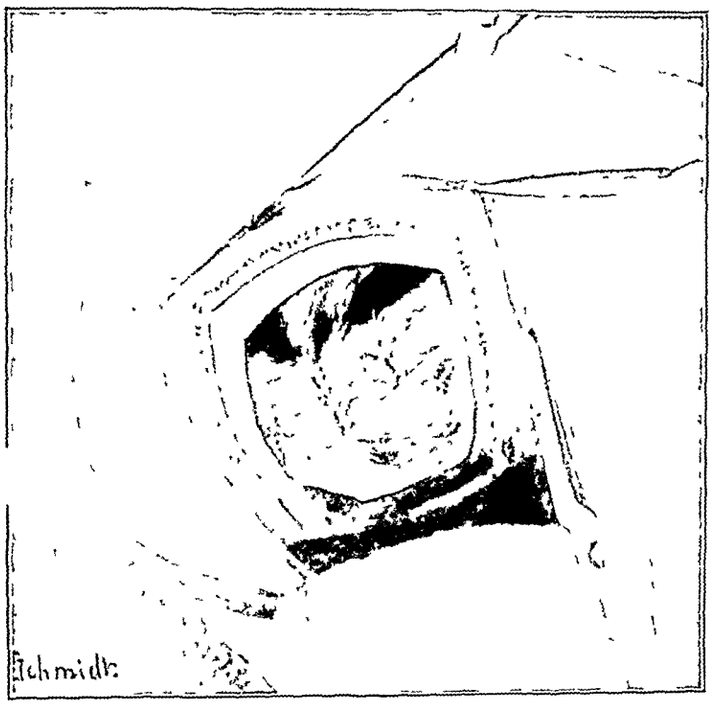

Fig. 5.—From a photograph taken in the course of a craniotomy on a patient referred to in Group 2. Note pial clot in motor area.

was discovered. On exposure of the motor area a thin layer of clotted blood in the arm center was revealed, evidently the result of a torn pial vein. The latter was ligated, the clot removed and the paralysis disappeared. Not only would decompression in this case have been unnecessary, but had it been resorted to the clot would not have been revealed and the patient would have been subjected to the risks of two instead of one operation.

Group 3.—Those in which the patient's condition, though not desperate from the first, becomes progressively more serious; the unconsciousness deepens, relaxation takes the place of restlessness, the respirations become more stertorous and Cheyne-Stokes in type and the pulse slower; in a later stage there may be signs of beginning breakdown of the respiratory and circulatory functions; it is in this group that decompression should be considered as a means of saving life. Whether we should decompress in the temporal or in the subtentorial region I am not prepared at the present time to say. Theoretically we would select the subtentorial region, where the greatest relief of pressure would be afforded the most important structures; namely, the vital centers in the medulla. We have been at work for some time on this problem in our experimental laboratory and hope in the near future to be able to draw some interesting and valuable conclusions. It is needless to say that, when undertaken, the operation should be performed without any anesthetic and should be conducted as rapidly as possible.

ANESTHESIA AND HEMORRHAGE

In operations on the central nervous system and, more particularly, in subtentorial lesions, with the cardiac and respiratory centers often just on the verge of a breakdown, so that even comparatively slight insults are not tolerated, a greater responsibility rests on the anesthetizer than in any other class of cases, except perhaps in those of grave toxemias, as of peritonitis. So important is this feature of cranial operations that under no circumstances should an operation be undertaken unless the services of a skilled anesthetizer are available. This problem has been met in my service at the University Hospital by the appointment of a permanent salaried official, a graduate nurse, who gives her entire time to the work and has proved eminently satisfactory.

In addition to the anesthetizer, the operating staff includes an assistant, whose duty it is solely to observe and record the blood pressure at frequent intervals throughout the operation. With these precautions one may proceed with the operation with the fullest assurance that the condition of the patient is being carefully watched and that one's attention will be drawn at once to the first suggestion of any alarming symptoms.

As a matter of convenience to the operator, as well as of safety to the patient, some means should be adopted to control hemorrhage from the scalp in the performance of craniectomies or craniotomies. This is a much simpler problem when operating for pretentorial than for

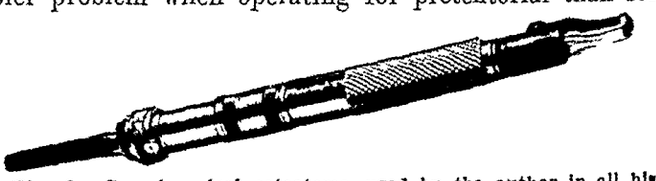

Fig. 6.—Cryer's spiral osteotome, used by the author in all his craniotomies.

subtentorial lesions. A great variety of devices have been suggested, such as those of Kredel, of Haidenhain and others. Dawbarn's sequestration anemia sounds plausible and I have no doubt it would be a delightful sensation to perform a bloodless operation under the regulated pressure of a Sauerbruch's chamber could the element of expense be eliminated. I have come to the conclusion that the simplest and in other respects the most satisfactory is a simple, old-fashioned Petit's tourniquet. The rubber tubing which I had been in the habit of using was either too light or too loose and by pressure on the supraorbital nerves occasionally caused severe frontal neuralgia. By means of the key on the Petit's tourniquet the amount of pressure can be regulated to a nicety and the breadth of the tape lessens the likelihood of harmful pressure on the nerves. The tourniquet is rendered thoroughly sterile by boiling or in the autoclave and may be handled whenever necessary throughout the operation; in applying it a small compress of gauze should be inserted beneath the tape over each temporal fossa. At the conclusion of the operation the pressure should be released sufficiently to en-

able one to see the principal bleeding points, opposite which the scalp sutures should be introduced to control bleeding.

TECHNIC

The technic of the osteoplastic flap has been well-nigh perfected. Many instruments have been devised for this purpose, but each surgeon must select for himself the one with which he can develop the greatest dexterity, the one with which he can section the bone with a minimum of trauma and the least expenditure of time. My experience has been solely with the spiral osteotome (Cryer's), an instrument which has seemed to me to meet every indication and enables one to reflect a flap of considerable dimensions in four or five minutes. The initial and the only opening in the skull is made with a conical fraise, so constructed that it can not penetrate the dura and usually jams before it penetrates even the internal table. Once the brain is exposed, some attempt should be made to prevent its surface becoming chilled by the use either of hot compresses or hot irrigations. Before replacing the flap bleeding from

Fig 7—Exploratory craniotomy. Note the position of the patient, size of the flap and the absence of bleeding in operative field even without the use of hemostats

every source should be under control, iodoform wax being used for the bone and the finest catgut ligatures for the pial vessels—the two common sources of hemorrhage.

Cortical stimulation may be used to advantage when it is desirable to determine with accuracy the situation of one or the other of the motor centers. As a matter of observation, it is interesting often to determine the precise relation of the lesion to the center involved, as, for example, in cortical epilepsy or in cases of tumor attended by convulsive seizures. It should be borne in mind, however, that with two or three successive stimuli the centers may be so exhausted as not to respond to subsequent attempts, no matter how strong the current.

The two-stage operation formerly so widely advocated is no longer necessary; so little blood is lost and time consumed in exposing the tumor that, when found, there is no reason why the surgeon should not proceed with its removal. We are speaking now of tumors of the cerebrum, not of the cerebellum, where there are greater technical difficulties and less favorable operative subjects to deal with. If it should be necessary for other reasons to reopen the flap, as I have had occasion to do twice, the second operation may be performed without either local or general anesthesia. None of the manipulations cause discomfort except those which involve the dura. Grasping the dura with forceps, the introduction of dural sutures, hot applications or douches excite some pain, but the pain is quite bearable and calls forth but little protest on the part of the patients. If the two-stage operation is resorted to, therefore, one should bear in mind the feasibility of conducting the second stage without subjecting the patient to the inconvenience or the risk of a second etherization. The manipulations of the brain substance itself are painless.

Fig 8—Section of brain, illustrating characteristics of an inoperable tumor Note the distance of the tumor from the cortex and its infiltrating non encapsulated character.

OPERABILITY OF BRAIN TUMORS

If the estimate is to be based on post-mortem statistics from 4 (Knapp) to 7 (Walton) per cent. are operable (Tillman places the percentage at 6.5). This, however, is a very inaccurate way of estimating the operability of tumors since at the autopsy table the size and relations of the tumor may differ very radically from that at the time when an operation should have been undertaken. As Horsley aptly says: "Postmortem records can never teach what the careful study of the living tumor exposed in an operation can demonstrate, since in almost every case the former condition is what we may term inoperable." But unfortunately surgical therapy in cases of brain tumor is too often regarded as the *dernier ressort* and the operation has been postponed so long that, even when exposed at the operating table, an overwhelming majority are beyond the stage at which removal is possible. If my own experience is any criterion, I have seen but seven, or possibly eight, cases all told in which the tumor was operable. These do not include cysts, tuberculoma or gummata. The operable tumor must be accessible;

that is, either on or just beneath the cortex and sufficiently well defined to enable one to determine its limitations. The inoperable, on the other hand, is a deep-seated or infiltrating growth. No attempt should be made to remove a growth of an excessively vascular infiltrating type. The attending hemorrhage may prove fatal, and, if the patient survive and the growth be imperfectly removed, recurrence will be rapid and the expectation of life no longer than after a decompression, if as long.

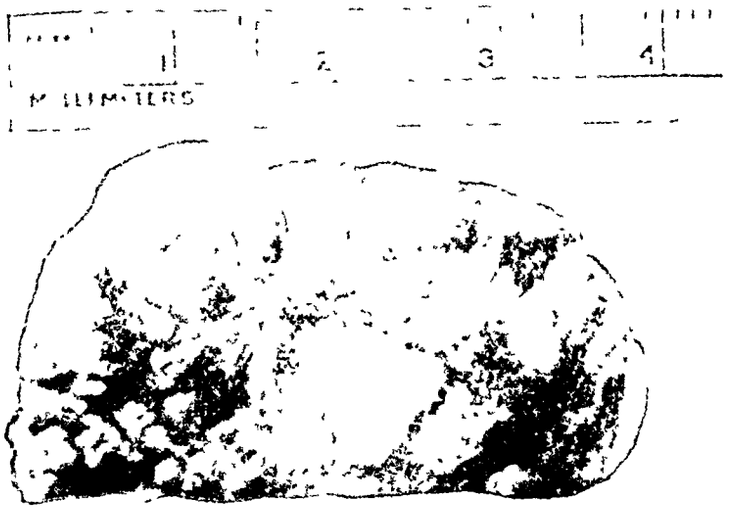

Fig. 9.—Type of operable tumor; from photograph of fibro-sarcoma removed from the cerebello-pontile space.

THE SURGERY OF THE POSTERIOR FOSSA

The exploration of structures subtentorial constitutes a problem very different from that involved in pretentorial lesions. From a large and varied experience I have formulated for my own service certain definite conclusions. They are as follows:

1. Generally speaking, exploratory operations and decompressive operations in the posterior cranial fossa are fraught with more risks to the patient than are those in any other part of the brain: a certain percentage of patients will die while under observation, or just as the anesthetic is begun, or when convalescence seems well established, apparently irrespective of operation. Those deaths are usually sudden, not forewarned, and are due to central disturbance of the respiratory apparatus. By artificial respiration I have seen the life of the patient sustained for eighteen hours, but the respiratory center never resumed its function.

2. If, added to exploration, an attempt is made to remove the tumor the risks of the operation are increased to such a degree that I consider such attempts, where the tumors are malignant and adherent to adjacent structures, as absolutely unjustifiable. This statement refers particularly to the tumors of the cerebello-pontile angle and to the malignant type, especially the endotheliomata. There may be instances, as in the encapsulated types of fibrosarcoma, or, of course, in the benign fibroma of the auditory nerve, when removal is quite feasible and may be curative in its effect.

3. The great majority of tumors are situated in the pontile angle—at least, if my experience does not differ very radically from that of other operators. To express this relative frequency more definitely, I should say that in my whole series of exploratory operations for subtentorial lesions there was but a single case in which the tumor was discovered in the substance of either cerebellar hemisphere.

4. While assuming a skeptical attitude regarding the operability, so to speak, of tumors in this region, I am most optimistic as to the results of decompression. In the subtentorial, more than in the pretentorial, lesion is decompression clearly indicated once the diagnosis is made. Papilledema is so much more constant and optic atrophy so inevitable a sequel that, apart from other considerations, operation should have been resorted to, as a rule, months before the patient is brought to the surgeon.

5. Lumbar puncture, either as a diagnostic or therapeutic measure, should never be resorted to. The number of fatalities from this apparently harmless procedure are so great as to make it absolutely prohibitive. I am speaking now chiefly from the observations of others as recorded in literature, as I have in but one instance ventured to practice it, and then only after a decompressive operation had been performed. In this case the effects, while not alarming, were most distressing. For forty-eight hours the patient had a violent headache and a peculiar vasomotor disturbance, which manifested itself in a deep red flush of the cutaneous surface of the neck down to the level of the clavicles, quite symmetrical and sharply defined. This manifestation of vasomotor disturbance was quite unique in my experience, although the circulatory irregularities which one sees not infrequently in cerebellar lesions are, in all probability, due as much to disturbance of the vasomotor as of the cardiac center.

Not wishing to describe in detail the steps of the operation, I may add a word or two as to the incision and size of the opening. For most cases it is not necessary to make a bilateral opening; that is, to remove the skull from over both cerebellar hemispheres. It is taken for granted that the osteoplastic flap is not appropriate for operations in this region, and, as the

Fig 10.—Incision for a unilateral suboccipital craniectomy. Stab wound in center of flap for drainage.

bone is not to be replaced, it has seemed to me unwise to leave permanently unprotected both hemispheres. An adequate opening is one which enables the operator to explore thoroughly the fossa on the suspected side without inflicting undue trauma on the cerebellum, pons, or medulla. Comparing the results of those cases in which I have made a bilateral with those in which a unilateral opening was made, I have come to the conclusion that in the majority of cases a perfectly satisfactory

exposure is obtained from a unilateral opening. On repeated occasions my records show that the deeper structures of the cerebello-pontile angle, as the auditory and facial nerves, were easily demonstrated to onlookers in the course of an operation. The nearer the external margin of the opening approaches the mastoid process the less displacement of the lobe will be necessary to explore the pontile angle. The opening should be large enough to prevent the cerebellar hemisphere, which when under great tension protrudes far beyond the level of the skull, from impinging against the edge of the bone. The cerebellum is much more easily lacerated than the cerebral tissue and must be handled with great delicacy. It is always possible to enlarge the opening so as to include the bone on the opposite side when the occasion demands it, but the larger the opening the more time is consumed and the more blood lost. If viewed from the standpoint of decompression a unilateral suboccipital opening will for obvious reasons afford proportionately greater relief of tension to the structures in the subtentorial region than a unilateral temporal opening to those in the pretentorial region.

Displacement of the hemisphere in one direction or another to explore the respective surfaces of the cerebellar hemisphere must be done with great gentleness and in this maneuver direct pressure on the medulla must be avoided. Many fatalities attending exploration or attempts to remove tumors are undoubtedly due to the effect of trauma on this structure. One might infer from certain illustrations that the cerebellar hemisphere can be dislocated to an almost unlimited degree, but this is far from the truth. In fact, one should always be content with a minimum rather than a maximum exposure.

Particularly after operations upon the posterior fossa has it been noticed that cerebrospinal fluid escapes through the drainage tract in much larger quantities than after the usual pretentorial exposure. This excess is no doubt due to the proximity of the large basal cisternæ and to the influence of gravity. When the drainage material is removed at the end of twenty-four hours there may be a continuous discharge of cerebrospinal fluid for several days. When the drainage tract closes the fluid may accumulate under considerable tension. This may give rise to some transitory disturbances, such as nausea and vomiting or other signs of pressure, or if the wound has not been carefully and properly closed the cerebrospinal fluid forces its way through between the margins of the wound and establishes a fistula which is sometimes difficult to close. The continuous flow of cerebrospinal fluid may be itself a serious matter, as, apart from the danger of infection, gradual exhaustion and death may ensue. Therefore, I wish to emphasize the importance of so making the incision in the various layers, the cutaneous and the fascial, that one overlaps the other. If this precaution is taken there can be no direct communication between the surface and the cerebrospinal space, and the chances of fistula formation are reduced to a minimum.

To obtain a better exposure of the cerebello-pontile space I once suggested the propriety of removing a portion of one cerebellar hemisphere. At the time the proposal was made, now some years ago, I had practiced it but once, and since then only twice. In discussing this proposal in his address before the British Medical Association three years ago Sir Victor Horsley, and since then Borchardt, Sachs and others, rather assumed that the partial extirpation of a lateral lobe was a part of my routine technic. It is because this suggestion has been given so much notoriety that I mention it here again in order to correct a misapprehension. My position in this matter would be correctly stated by saying that there are exceptional instances in which a portion of one lateral lobe might with propriety be removed; instances in which an adequate exposure could not be obtained by a liberal opening or by emptying the basal cisternæ or by evacuating a lateral ventricle. From the practical point of view I have never seen any untoward effects from this procedure, and theoretically, judging from the experimental observations of Luciani, we have reason to believe that one portion of a hemisphere has the power of compensating for that which, either by atrophy or removal, has been thrown out of commission. I recently examined a patient from whom six years ago I removed from one-third to one-half of one cerebellar hemisphere and found no evidence of any disturbance which could be attributed to loss of cerebellar tissue.

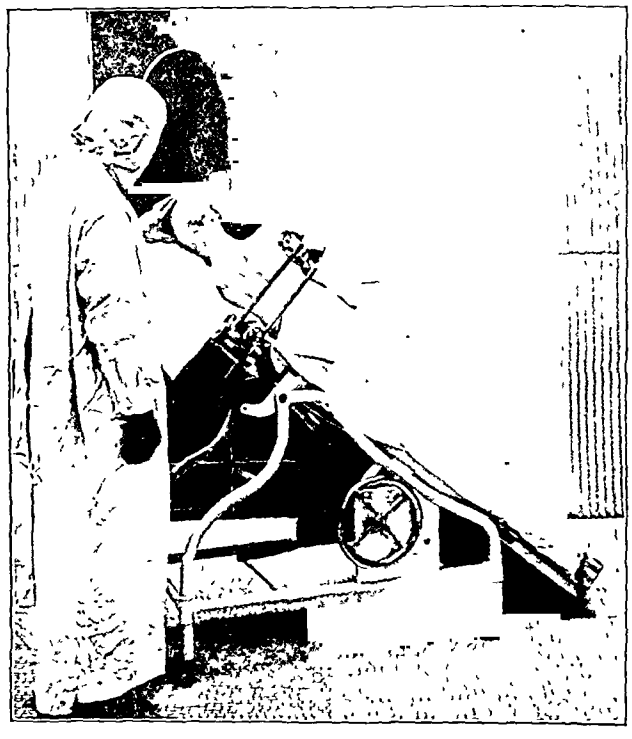

Fig. 11.—Author's special operating table and position preferred for operations on the posterior cranial fossa. Position of patient on the side is maintained by special appliance attached to deltoid region.

The performance of an operation for the exposure of lesions in the posterior fossa requires as much experience and practice as that for the removal of the Gasserian ganglion. There are several features in the technic which seem to me worthy of mention. First, as to the position of the patient, having tried various ways, I have selected the head-up-lateral posture as the most desirable. In this position venous hemorrhage is minimized, respiration is not interfered with—a very important consideration in this class of cases—by slight flexion of the head the field of operation is quite accessible, the anesthetic can be administered more easily than in the prone posture and in exploring the pontile space. As the most direct approach is from the region of the mastoid along the posterior aspect of the pe-

trous bone, I find that with the patient on his side I can see, without stooping and without the aid of artificial light, into the depths of the posterior fossa. On a table designed for these operations the position of the patient is easily maintained and the degree of elevation is readily adjusted to meet the needs of the individual case.

It should be borne in mind that not infrequently in exploring the cerebello-pontile space the necessary manipulations, or possibly a residual blood clot, may cause some transitory disturbance of the function of the cranial nerves to be found in this region. This is especially true of the facial, auditory and glossopharyngeal, and occasionally of the trigeminal. Difficulty in swallowing has been observed a number of times. The surgery of the acoustic nerve is still in its infancy. The principal indications are persistent tinnitus of labyrinthine origin and aural vertigo. To one familiar with the technic of the surgery of the posterior fossa the operation is not difficult; at least, the nerve is readily exposed, although its isolation from the seventh, which it almost surrounds, is not so easily accomplished. There are but five or six cases on record. During the past year Ballance divided the nerve for painful tinnitus, and at the request of Dr. Mills I performed a similar operation for persistent vertigo. Up to the present time the results as a whole have not been satisfactory.

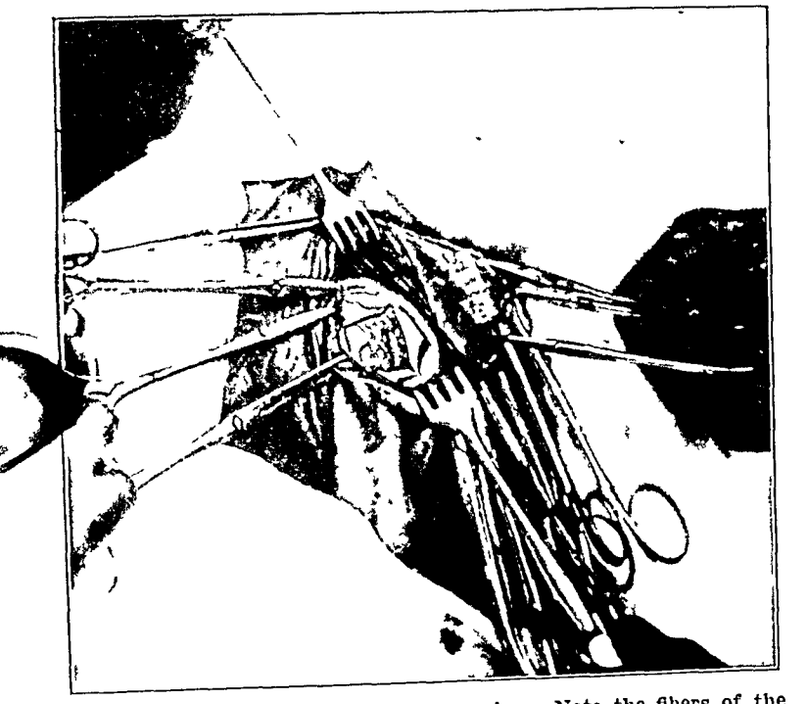

Fig. 12.—Simple temporal decompression. Note the fibers of the split temporal muscle; the reflected flap of temporal fascia; the crural incision in the dura; dural flaps reflected and the distention of the pial veins.

DECOMPRESSION

From what has been said of the operability or inoperability of pretentorial tumors it will be seen at a glance that in the great majority of instances palliation is the most that the surgeon can offer, but palliation in cases of brain tumors means a great deal more than is usually implied when the term is referred to other incurable conditions. It means restoration or preservation of vision, relief from headache and from vomiting, the three symptoms which together render the patient's life miserable and unendurable.

Decompressive operations have been written and talked about so much of late that to treat the subject exhaustively would but involve much repetition. But, inasmuch as it has assumed so conspicuous a place in cranial surgery, I feel obliged to present some of its salient features.

The operation has a wide application and should not be reserved for tumors only; epilepsy, chronic meningitis, with or without hydrocephalus, and trauma should be included among the indications. But with tumors we should not be content with purposeful palliation unless the tumors can not be localized or can not be removed. The ease with which the simple decompressive operation can be performed, its growing popularity and the immediate relief it affords are tempting surgeons to be content with palliation, and if the habit becomes too prevalent some operable tumors will be overlooked.

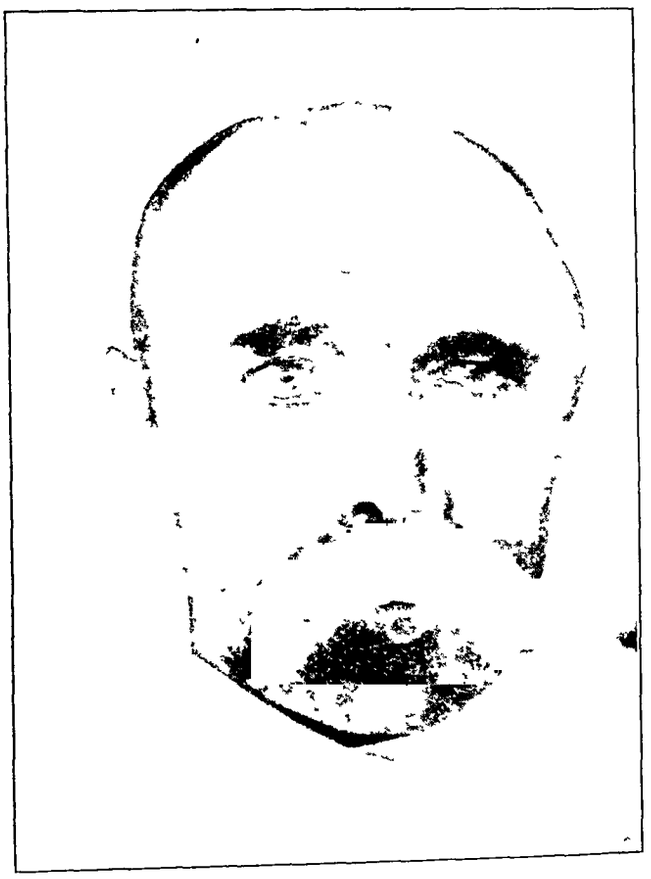

Fig. 13.—Patient shown in Figure 14, ten days after operation Hernial protrusion twice the size, under tremendous tension and without pulsation.

In looking over my records I find that in the majority of cases decompression was preceded by exploration and without increasing the mortality. It is a very simple matter to decompress over the temporal region through the opening that was made for exploration, as the base of the osteoplastic flap is almost always in this neighborhood. I should like, therefore, to enter a plea against the growing tendency to resort to decompression without first carefully searching for the tumor.

To this general rule there may be an exception, however, as when the conditions call for immediate relief and the opportunity for careful study and localization of the growth has not been afforded. Three such instances occurred in my own practice.

It is needless to emphasize the importance of early operation in cases in which localization is difficult or sometimes impossible. The habit of indefinitely prolonged courses of iodid of mercury with the hope that some definitely localizing or diagnostic symptom may be developed should be deprecated. During this unpardonable delay the optic nerve may become so atrophied

that restoration of vision is out of the question. If in the course of six weeks or two months the condition is practically unchanged and the suspicion of tumor is reasonably established, decompression should be resorted to without delay, in the hope that subsequently, with the appearance of localizing symptoms, the tumor may be found and removed.

The propriety of resorting to decompression in advanced cases when the patient is already in deep stupor may be questioned. Bruns (quoted by Spiller), for example, advises against it. I recently operated in a case of this description for Spiller. The patient was so stuporous that no anesthetic was required; the operation did not influence in the least the subsequent course of events. A striking exception to this rule was brought to my attention in a patient referred to me by Dr. Mills. She was brought to the hospital unconscious; following decompression she not only recovered consciousness, but was relieved of all the symptoms of intracranial tension, was able to leave the hospital and has resumed her household duties.

As a rule the effects of decompression are so beneficial that one should not question the propriety of the operation whenever there is a reasonable hope of the patient's surviving the ordeal. There are, however, exceptions to the rule. In some instances the operation seems to have little or no effect, and in others, though quite exceptionally, the relief of intracranial tension may be followed by some aggravation of these symptoms. Thus, about ten days after a bilateral decompression, a patient who had been under the care of Dr. Van Pelt, suddenly became somnolent, aphasic and paralyzed on the left side of the face and left arm. A hasty examination of the field of operation found a decided change in the condition as noted the day before. From a hernia under little tension, and with visible pulsation, the hernial protrusion had become more than double the size, was under tremendous tension and pulsation was absent (see Fig. 14). Thinking the sudden change in the condition might have been due to rupture of the middle meningeal artery, I laid bare the field of operation, but there was no evidence of subdural hemorrhage; the brain appeared congested, of pinkish color, and a section removed for microscopic examination was reported as showing evidence of hemorrhagic encephalitis. In this case I attributed this sequence of events to a hemorrhage into the cerebral tissue. The sudden relief of intracranial pressure withdrew the support to which the vessels were accustomed, and, not being able to withstand the intravascular pressure, the vessels ruptured and hemorrhage ensued. What in most cases has been attributed to a more rapid growth of the tumor after exploration may be nothing more than a diffuse extravasation of blood or the edema which follows the sudden relief of intracranial tension.

The term decompression implies not simple trephining, but the removal of a considerable portion of bone on one or both sides of the cranium, together with the removal of the dura or a crural incision in it. In subtentorial cases decompression is advisable in the occipital region, and in the pretentorial cases, as Sänger suggested, in the silent area of the right temporal region, and as Cushing proposes, by splitting temporal muscle.

The expectancy of life after the operation is of no little interest; even though the patient survives the operation but a year it is no little thing to be able to preserve sight, allay vomiting and relieve headache for the days that remain. But a greater prolongation of life may be anticipated; from my own clinical experience there are patients alive from three to six years after the date of decompression.

Reference has already been made to the problem of decompression as applied to cerebral contusion; whether decompression combined with drainage may be beneficial in inflammatory conditions, as in suppurative meningitis, is problematical; that it may be of service in unilateral internal hydrocephalus there is no question. According to Kocher epilepsy may be favorably influenced by the *Ventilbildung,* the establishment of an opening large enough to prevent the increase in tension, which he believes precedes the attacks. While there may be theoretical and practical objections to this hypothesis, I am quite convinced that in some cases at least the improvement after the operation is very striking. Though acknowledging some skepticism as to the theory on which the operation is based, I have resorted to the operation a number of times and have under observation

Fig 14—Patient after bilateral temporal decompression in a case of brain tumor which could not be localized Note the establishment of a hernia cerebri only on one side.

some fifteen to twenty patients already operated on. For obvious reasons the results should not be published until five years have elapsed. Whatever may be said, *pro* or *con,* as to the propriety of operating in cases of the so-called idiopathic type, in cases without a suggestion of a focal lesion, I have been surprised to find in a large percentage of cases the brain when uncovered presented some gross pathologic lesion (adhesions, edema, the remnants of an old pachymeningitis, etc.) so frequently that it would appear as though the so-called idiopathic type was a little less prevalent than we were led to believe before we had so many opportunities as now to study the living pathology of the brain and its membranes.

This subject is a massive one and I am quite conscious of the necessarily superficial way in which it has been treated. There are many problems in cranial surgery but imperfectly grasped and many more still untouched. Though accompanied with many disappointments, the study of these problems is a fascinating one and offers a fruitful field [illegible] vestigation.

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Original Articles

THE CINCINNATI MILK SHOW

W. A. EVANS, M.D.
Commissioner of Health
CHICAGO

The medical world is more and more making a study of the public health. Following closely on the progress made in the field of preventive medicine, we are seeing the principles therein established applied to large communities. The work of a health officer no longer means merely the collection of vital statistics, the suppression of communicable diseases and the abatement of nuisances, but involves the larger one of sanitary instruction of the public. There are in this country practically no colleges which prepare men for this expert work, and with the large percentage of our health boards whose personnel reflects some political affiliations in control of the work of the health officer, it is not to be wondered at that some of our cities are not making the desired progress in their health affairs.

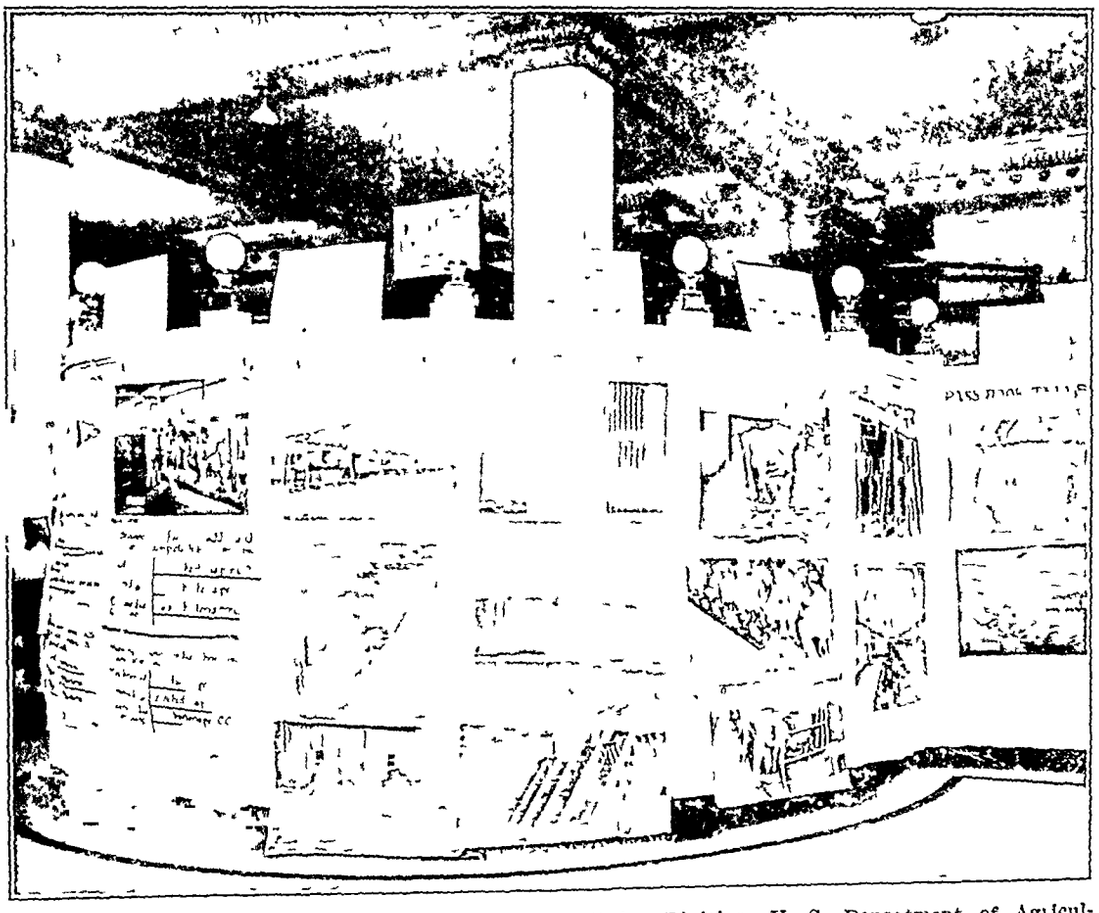

Fig 1.—Cincinnati Milk Show. Exhibit of the Dairy Division, U. S. Department of Agriculture; good and bad dairy conditions.

The city's health, as well as its disease, is more and more becoming the business of every conscientious physician. The medical man is contributing his valued share to the universal improvement of health in cities. The Cincinnati Milk Show, which I visited the first week in May, was most distinctly a physicians' movement, and a report of the same should be of interest to the profession at large.

The Milk Commission of the Academy of Medicine of Cincinnati, now entering on its third year of activity, has just brought to a successful conclusion the Cincinnati Milk Show, the most comprehensive educational attempt of its kind ever made by any American city in the crusade for the betterment of its milk supply. Probably no city had greater need for such a campaign, and in no city could the work have been made more difficult, for past boards of health and milk inspectors have stood squarely in the way of any progress along the line of better milk.

The practice of feeding wet distillery waste to milk cows (abolished fifty years ago in New York), with the dairy conditions that are always to be found with such feeding, had made it impossible commercially to maintain dairies on a proper milk-producing basis in this vicinity. Dr. S. E. Allen, of Cincinnati, began a vigorous agitation for better dairy conditions in 1906. The community did not understand as well as it should the importance of better milk, and Dr. Allen was not backed up by his health board as he should have been. The present health officer, Dr. Mark A. Brown, has also failed to receive the kind of support that he should have had.

Largely through the influence of Dr. Allen, who had previously gone out of office, the State Legislature of Ohio in January, 1906, passed a bill prohibiting slop-feeding to dairy cows; and the organized medical profession, and especially the milk commission and its secretary, Dr. Otto P. Geier, conducted a three months' campaign in behalf of this bill with eventual success, although it was opposed by most powerful interests. The bill having passed, the difficulties were not at an end, and the milk commission and the medical profession were very active in securing administration under this bill.

The milk commission began to make arrests of the violators of the law, and so intelligently, fearlessly and consistently did they proceed in awakening public sentiment that they found all of the civic organizations back of them when they recently presented to the city council for passage an ordinance abolishing the present board of health and creating a non-partisan board, to be composed of experts properly qualified to carry on some continuous plan of guarding the city's health. This measure was passed in face of the fact that the council was strongly partisan.

From the very beginning this commission has gone direct to the people, and the politicians have heard in no uncertain terms from the sentiment thus crystallized in the public mind.

And so it was with the milk show. The moment the plan of the same was placed before the various civic organizations the milk commission was given their hearty support. And with what results? Twenty thousand people visited the pure milk exhibit in five days; hundreds of dairymen attended the four sessions of the dairy institute, where addresses were made by some seventeen authorities on the following general headings:

What Constitutes Good Milk and How It Is to Be Produced.

The Necessity of Cooperation Between the Consumer and Producer.

Detection and Cure of Diseases in Dairy Cattle.

Effect of Cattle Diseases on Milk.

The Breeding, Selection and Feeding of Dairy Cows.

A national certified milk contest added to the interest of the exhibit, while fifty shippers of milk into Cincinnati competed for the prizes offered in the market milk contest. A complete dairy equipment exposition was another feature added to educate the dairymen in the methods of modern dairying. A public meeting brought the milk show to a close.

And now a bit more into detail. What factors entered into the great success of this milk show? To begin with, a broad conception of the subject and a gathering together of all of those elements which would make for success. The underlying principle was the education of the consumer, as well as the producer, and that a better understanding between the two would make for an earlier solution of the problem of a clean milk supply. "Sanitary instruction is better than sanitary legislation."

The cooperation of the U. S. Department of Agriculture, Bureau of Animal Industry; the Ohio State University; the Ohio Dairymen's Association, and other local dairymen's associations, as well as the Business Men's Club; Antituberculosis League; Women's Club: Chamber of Commerce, and federated organizations were secured. Splendid quarters were obtained right in the heart of the city for the exhibits which I shall now briefly discuss.

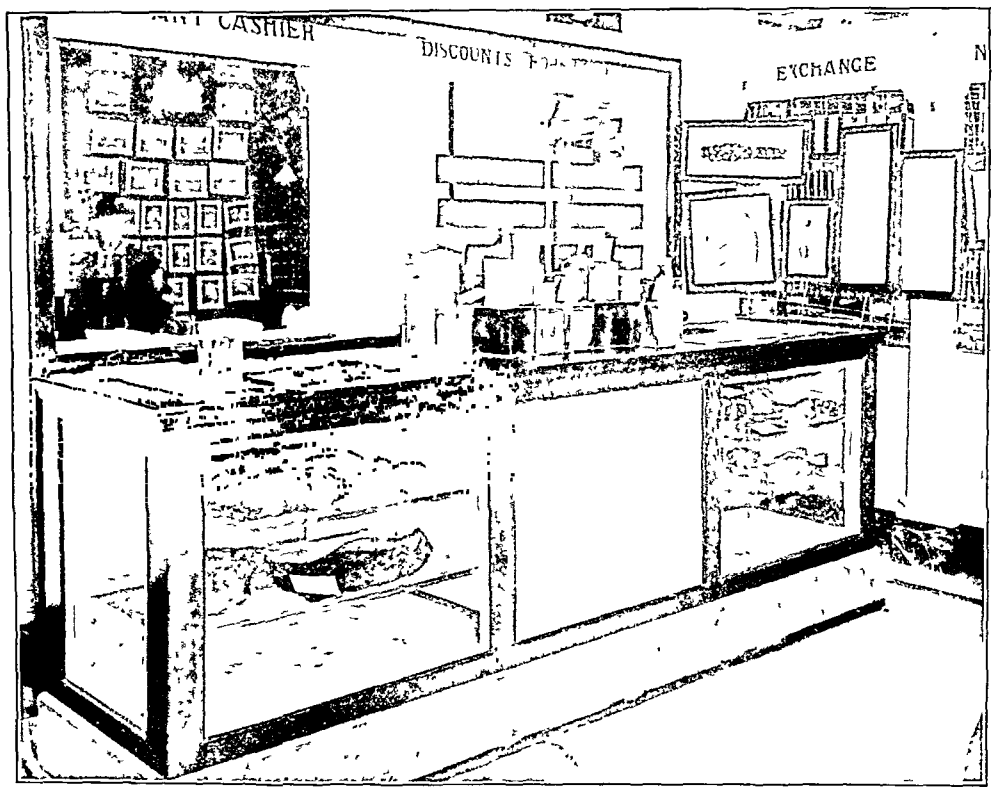

Fig 2—Cincinnati Milk Show. Tuberculosis exhibit, Pathological Division, U. S. Department of Agriculture.

THE PURE MILK EXHIBIT

This part of the milk show was held in a spacious vacant banking room, and was given over largely to the exhibit supplied by the Dairy Division of the U. S. Department of Agriculture and that of the Pathological Division of the same department. There was displayed a series of enlarged photographs so arranged that the good and bad dairy conditions were brought out in startling comparison. Charts of all kinds indicated the bacteriologic findings in milk produced under good and bad conditions. The tuberculous cow was shown next to a healthy one; badly ventilated barns next to modern ones; sanitary methods of milking alongside of slovenly methods. Thus in one glance the public could appreciate the basis for the agitation which has been carried on for an improvement of the milk industry.

The next and perhaps most popular exhibit was that held under the Pathological Division, Bureau of Animal Industry. In a large glass refrigerator were shown fresh specimens from the abattoir showing tuberculous lesions in dairy cattle. On top of the refrigerator were placed the alcoholic specimens of the same human lesions under glass. On the wall near by were hung fine colored drawings of bovine and human tuberculous lesions in the various organs. A series of colored plates showed the transmission types of the tubercle bacilli. While the presence of tuberculosis in dairy cattle and its attendant danger is accepted without discussion by the profession, an ocular demonstration like the above was valuable in convincing the lay mind of this menace to public health. The elimination of this source of tuberculosis is difficult on account of public apathy, and compulsory pasteurization of the bulk of any city's milk supply will be necessary until the people acquire a better understanding of this danger, and then compulsory testing of all dairy cattle with tuberculin will be enforced.

The federal authorities were represented by a number of experts who throughout the day explained the various phases of the exhibit, and one can not speak too highly of the educational value of their work done in Cincinnati.

COMPLETELY EQUIPPED MILK LABORATORY

Here the government sought to enlighten the public and the dairymen in the details of milk examination. A complete laboratory for bacteriologic and chemical work had been provided by the local committee. Consumers and producers were invited to send in their samples of milk for a report thereon. The simpler methods of judging milk were also explained, and it was rather remarkable to see how the people crowded about this demonstrator continuously. A series of Petri dishes affixed to plate glass showed the rather interesting variation in bacterial growth in certified milk, fair market milk and filthy market milk. Black paper had been pasted on the opposite side of the glass so that the

colonies could be readily seen. This display gave to the uninitiated a fair understanding of the methods employed in judging the milk for its cleanliness.

MINIATURE MODEL DAIRIES

A valuable object-lesson to the farmer in this milk show was a miniature reproduction of the dairy buildings of one of the certified farms located at Louisville, Ky., which was loaned by the Neill Roach Dairy Company.

Every detail of construction, location of buildings, interior of barn, milk house, quarantine stables, detention barns, was shown, even to the point of the system of ventilation.

A topographic reproduction of the farm, roads, buildings, etc., of the Walker-Gordon farm at Plainsboro, N. J., added much value to this phase of the object-lesson in modern dairying.

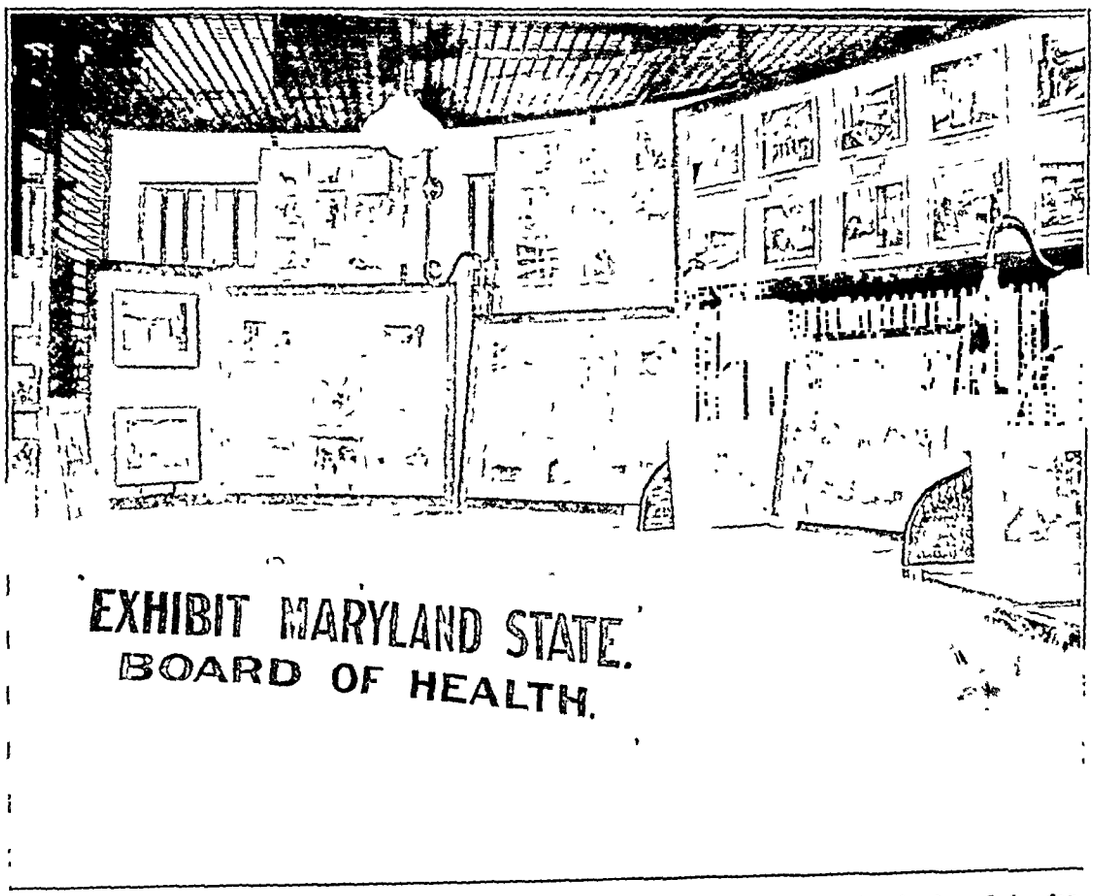

Fig. 3.—Cincinnati Milk Show. Exhibit showing dairy conditions in Maryland and in foreign countries.

EXHIBIT OF MARYLAND STATE BOARD OF HEALTH

This collection of pictures was most interesting, showing not only the dairy conditions in the State of Maryland, but a most remarkable collection of photographs indicating good and bad dairy conditions in foreign climes.

SHOWING BY MEDICAL MILK COMMISSION

The Cincinnati Academy of Medicine, about three years ago, appointed a milk commission for the purpose of encouraging the production of a clean milk which might safely be prescribed by the medical fraternity of that city. That they accomplished that purpose was evidenced by the splendid showing made by the producers of four inspected and two certified milks put on display. The combined output of these six dairies which are supervised by the experts of the milk commission now totals 600 gallons a day. These producers forgot for the time their rival interests and worked together in an admirable spirit of cooperation. Their products, properly capped and sealed with the insignia of the milk commission, showed the public in the purity of what milks they might have absolute confidence.

Panoramic views of the farms under certification and interiors of the dairy buildings were displayed and made a marked contrast to the slovenly city dairy portrayed by the government as an example of what constitutes insanitary dairying.

Among the many interesting charts of the milk commission exhibit was one which caught my particular fancy and which showed some of the earlier work of the commission. An inquiry was made into the kinds of milk purchased by the various hospitals in Cincinnati and was amplified by a search as to how the milk was cared for in the hospital and in what condition it finally reached the patient. The results shown by the charts were most startling. The majority of the hospitals had purchased milk the chemical composition of which was very fair, but on account of indiscriminate skimming of the same along its route to the patient it reached the patient almost invariably with a very low fat content. Milk that averaged 4 per cent. in the store-room was given to the patient with a butter fat reduced to 3.2 per cent. and 1.8 per cent. From the standpoint of cleanliness, even grosser carelessness in the handling and keeping of the hospital milks was shown. While the content of the store-room milk was found to be anywhere from 17,000 up to 700,000 bacteria to the cubic centimeter, it was in all instances very much worse when received by the patient. Open vessels, lack of ice, etc., accounted for the tremendous increase. In one instance where a hospital was buying inspected milk which showed a bacterial count of 17,000 in the store-room, the patients on the second floor were receiving that milk in which the bacteria now numbered 5,000,000.

The direct result of this investigation was an improvement in the care and handling of milk in all of the hospitals, and two hospitals now buy only inspected milk.

Many other charts, among them one showing the keeping qualities of certified milk in storage for the four weeks preceding the milk show, added interest to this phase of the exhibit.

This medical milk commission has taken on itself a much broader scope of work than the average commission. It has conducted a three years' campaign of education, the culmination of which was this milk show. In this it points the way for all other milk commissions. Every county medical society would do well to appoint

a similar committee, whose business it would be, not only to provide for them a clean milk, but to become conversant with the milk problem of that particular community and assist in its solution. If the health officials are doing their duty, such committees would only cooperate, but should they fail in giving proper service to the people such committees would properly bring the matter to the attention of the public.

TO MEET IN ATLANTIC CITY JUNE 7

The Cincinnati commission is credited with organizing the American Association of Medical Milk Commissions. In less than two years this association, through its central office, has been the means of so stimulating the interest of the profession in their work that the number of commissions has increased from twenty-two in 1907 to forty-eight at this time. This association meets each year one day previous and at the same place where the meetings of the American Medical Association are held. This year the conference will be held at the St. Charles Hotel, Atlantic City, N. J., June 7, 1909, at 10 a. m. Medical men interested in this work are invited to attend the meeting.

THE NATIONAL CERTIFIED MILK CONTEST

The secretary of the Cincinnati Commission is also secretary of the National Association of Medical Milk Commissions. Great pains were, therefore, taken in securing the cooperation of the various milk commissions of the country to the end that their producers should enter this contest. When the entries closed and the government took charge of the milk, which was in cold storage, they found twenty-five samples from certified milk producers scattered all over the country from San Francisco and Seattle on the west to many cities scattered along the Atlantic coast to Toronto on the north, not forgetting cities in the middle west and northwest. Almost without exception these milks arrived in splendid condition and the government officials say that there never was a contest in which the bacteriologic findings were so uniformly low. That clean milk, well iced, can be kept almost indefinitely was shown by the distribution of the prizes. Mr. Lovett, of Brighton, N. Y., took first; Mr. F. E. Moore, Alford, Pa., second; while honorable mention went to producers in California, New Jersey, Toronto, Canada, and Ohio.

An annual national certified milk contest was encouraged by the Cincinnati milk show in that the first prize, a silver cup, was offered by the American Association of Medical Milk Commissions, and the second prize, also a silver cup, was offered by the Certified Milk Producers' Association of America. They are presented with the understanding that they are to be held by the fortunate winner until the next annual contest, when they will be passed on to the producer of certified milk receiving the highest score in that contest. A different system of collecting the samples for the certified milk contests will be placed before the members of these two associations at their meetings in June. This method, if adopted, will remove the only possible unfairness that might exist in similar contests in the future. It would seem that these two associations in offering these two cups in this way have made even more certain the continued progress of the certified milk commission idea, and that these annual contests will more and more unify the standards of the various commissions and thus widen their usefulness. There is no longer any doubt but that the professional control of dairies in the production of certified milk is a success and that the field of educational work of such medical milk commissions is practically unlimited.

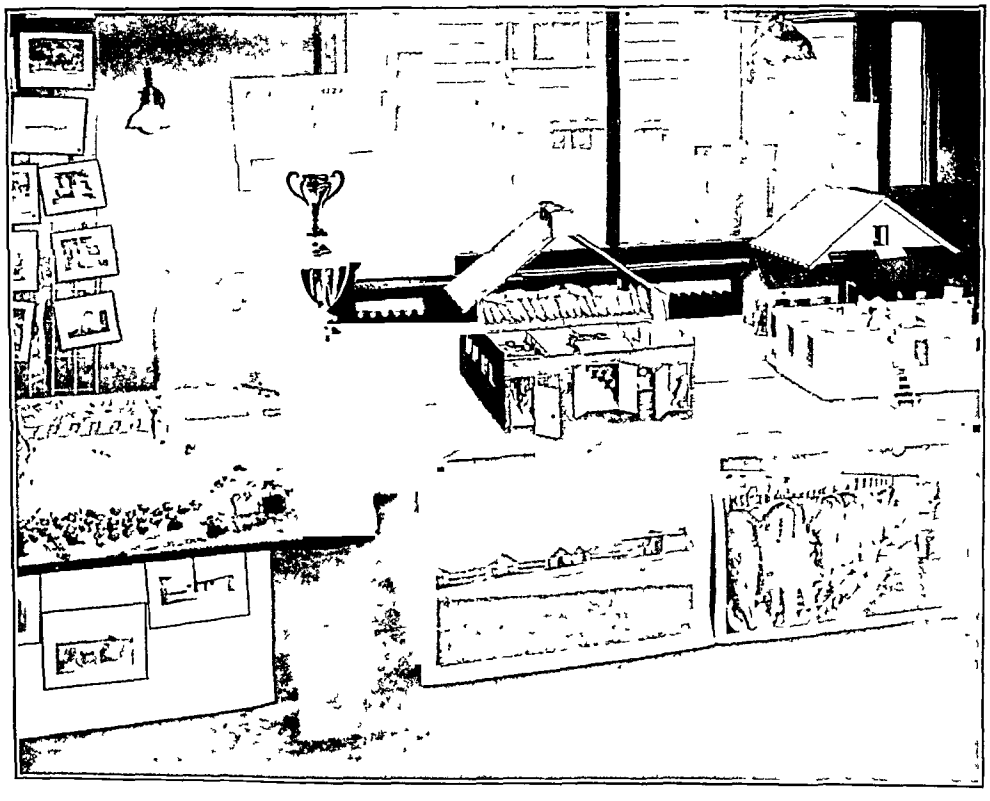

Fig. 4.—Cincinnati Milk Show. Miniature models of dairy farms and prizes in national certified milk contest.

DAIRY EQUIPMENT EXPOSITION

The exchange floor of the Chamber of Commerce which is above the rooms given up to the pure milk exhibit was devoted to the dairy implements exposition. Thirteen implement manufacturers and supply houses here exhibited modern dairy equipment apparatus. The exhibit included a great variety of utensils, from a milk-pail to a gasoline engine, and attracted not only dairymen, but others as well. It was useful in that it placed before the dairymen those things which help to make their business more profitable and their product more acceptable. The handling of milk is becoming more and more a mechanical operation. Better appliances looking toward the safeguarding of a pure product are constantly appearing on the market. Boards of health are continually raising the standards and enforcing stricter requirements in regard to the milk supply, and these

throughout the four sessions. The local committee enjoyed the cooperation of the dairy department of the Ohio State University and the Ohio Dairymen's Association, who assisted not only in securing the speakers, but in bearing the burden of that expense. The papers brought out most interesting discussions, in which the dairymen took active part. A better mutual understanding of the conditions between the producer, dealer and consumer was the natural result. To those consumers who heard these discussions and to the far larger number who read about them in the newspaper reports of the meeting was brought home the conviction that his inquiry should be, not "How cheap," but "How good is the milk which I buy?"

103 State Street.

ACUTE PANCREATITIS *

WILLIAM FITCH CHENEY, M.D.
Professor of Principles and Practice of Medicine, Cooper Medical College, and Physician to Lane Hospital
SAN FRANCISCO

REPORT OF CASE

History.—A man aged 29, always previously well, was taken suddenly and violently ill on the evening of July 19, 1908. After working all day and eating his supper as usual he had a feeling of weight in his stomach, drank some water for relief, and was immediately afterward seized with very severe pains. These persisted until an hour later he vomited a large amount of material, watery in character, which he described as "black-looking stuff." This vomiting recurred later in the night and altogether he brought up a large amount of this dark-looking fluid. After a hypodermic injection of morphin the pain and the vomiting gradually ceased and he slept. The next day he had hiccoughs and these persisted more or less constantly thereafter until July 25. During this period, July 20 to July 25, he had only a little pain, but vomited from time to time, at least once a day, irrespective of food taken, and could not take food because it caused nausea and distress. The hiccoughing was relieved only by stomach washing, but would recur after a short interval of relief. The material removed by lavage was only a greenish, watery fluid. At first, following the onset of his illness, he was bloated and tympanitic, but this gradually subsided. He had no fever of consequence and his temperature was mostly subnormal. After July 25 there was no more hiccoughing, but the patient continued to vomit at least once every day and was, therefore, fed exclusively by rectum; nevertheless he kept on vomiting at times, a very sour material, often dark brown in color. He had no pain, but rapidly grew very weak. Finally on July 30 he was brought to Lane Hospital, in San Francisco, when the foregoing history was elicited.

Examination.—On July 31 the following notes were made of the patient's condition: "His face looks drawn, haggard and cyanotic. The upper half of the abdomen is more full than the lower, especially in the right hypochondrium. The abdominal wall is rigid in the epigastrium and the right and left hypochondrium, so that deep palpation can not be made; furthermore, the patient complains of great tenderness when deep palpation is attempted. The liver dulness measures 10 cm., the splenic 7 cm. The temperature at this examination is normal, the pulse 100, full and regular." Further investigation showed that the urine was normal. The white blood corpuscles numbered as high as 35,000, and 84 per cent. of these were polymorphonuclears. The temperature by rectum was normal in the morning, but rose to 101 each evening.

Course of Disease.—The vomiting persisted several times each day, of dark brown material, showing blood both by gross inspection and by chemical tests; at times the vomitus was greenish and apparently free from blood, but at other times it appeared to be almost pure blood, with clots, dark and coagulated. The pulse rapidly grew weaker and more rapid as the vomiting continued and no food could be taken. Operation was advised; was accepted, and was performed by Dr. Emmet Rixford on August 5. A large abscess was found in the gastrohepatic omentum and about 8 ounces of pus evacuated. The patient died at 4 a. m. on August 7.

Autopsy.—The partial autopsy permitted showed the pancreas sloughed and partially destroyed, with perforation into the lesser peritoneal cavity; but no perforated gastric ulcer as had been suspected as a cause of the abscess. The stomach, duodenum, pancreas and gall bladder were removed and submitted to Dr. William Ophüls for pathologic examination. His report on them was as follows: "A large portion of the pancreas, between the middle and the distal thirds, is necrotic and infiltrated with pus; there are no fat necroses and nothing abnormal about the pancreatic duct; one of the smaller branches opens abruptly into a defect caused by the necrosis. The bile ducts and gall bladder are normal, the latter filled with normal bile. Smears from the bile show nothing abnormal, no bacteria; smears from the necrotic mass show a few polynuclear leucocytes, many small encapsulated Gram-positive diplococci, a few short Gram-negative rods. Cultures from the bile show a mixture of Gram-positive diplococci and Gram-negative bacilli; cultures from the pancreas show a few Gram-positive diplococci and many Gram-negative bacilli. Diagnosis: Abscess of pancreas (pneumococcus infection), with perforation into lesser peritoneal cavity; infected bile."

Several important questions are suggested by this case.

I. HOW FREQUENTLY DOES ACUTE PANCREATITIS OCCUR?

To this one can only answer that it certainly is not a rare disease. It seems, however, to have gone undiscovered for many years, like appendicitis and cholecystitis; and, as with these latter, the cases have multiplied rapidly since the condition began to be studied.

It is generally admitted that the first satisfactory description of the symptoms of acute pancreatitis was given by Fitz, in 1889, in his Middleton-Goldsmith lecture,[1] though cases had been recognized before that time and reported by several clinicians and pathologists, especially in Germany. Since that date, and during the past decade particularly, the disease has received an increasing amount of attention; cases have been frequently reported in medical literature, and the pancreas has become an object of especial interest.

In April, 1907, Egdahl[2] was able to collect from literature 105 cases reported up to that date by various observers. No doubt as time goes on and the manifestations of the disease become better understood it will be found that acute pancreatitis occurs even more frequently than is now realized.

II. WHAT CAUSES THE DISEASE?

The answer to this question can be summed up in one word—infection; but there are several possibilities open as to the route of infection. This may occur (a) from the intestine through the ampulla of Vater and the pancreatic duct, or (b) from the gall bladder, by obstruction of the ampulla and the passage of infected bile from the common duct up the duct of Wirsung, or (c) by direct extension of a duodenitis through the wall of the duodenum into the head of the pancreas, or (d) by infected emboli carried by the blood stream from distant parts. The consideration of these various possibilities suggests the clinical conditions that may precede and underlie acute pancreatitis. Most cases have

* Read before the San Francisco County Medical Society, April 13, 1909.

1. Boston Med. and Surg. Jour., February and March, 1889, cxx, Nos. 8, 9 and 10.
2. Johns Hopkins Med. Bull., April, 1907.

been found to be associated with disease in the gall bladder; in Egdahl's list, 44 cases of the 105 belonged to this group. There may be a gallstone blocking the ampulla of Vater, or there may be, as in the case herewith reported, simply infected bile without evidence of gallstone formation.

The next largest group of cases, 32 in Egdahl's list, is associated with gastroduodenitis, especially that due to alcohol. This causes the pancreatitis indirectly, by occluding the ampulla by inflammatory swelling and so permitting retrojection of bile into the pancreas; or directly by infection along the common duct and the duct of Wirsung from the duodenal surface, or else through the duodenal wall.

The cases reported as occurring secondary to other local or general infection, such as appendicitis, mumps, typhoid fever and boils, are best explained as due to transmission of infection by the blood. That infection of the pancreas does not occur more frequently is probably owing to the bactericidal power of pancreatic juice; and when acute pancreatitis does occur there must be some other factor that diminishes this bactericidal power. Whether this is always stasis due to obstruction at the ampulla, or whether it may be some change in the chemical composition of the secretion, is so far only matter for conjecture.

III. HOW CAN WE RECOGNIZE THE DISEASE CLINICALLY?

From all the reports of published cases, as well as from the one above described, it is evident that the onset is violent and sudden.

The first symptom is usually pain, situated in the epigastrium, of great severity, usually paroxysmal in character; vomiting occurs soon after pain begins, is persistent and severe, and frequently the vomitus is bloody; collapse quickly follows, with rapid and weak pulse, prostration and possibly death within twenty-four or forty-eight hours. If the patient survives the shock of the initial symptoms, hiccough is likely to become a persistent feature; the bowels are obstinately constipated and the symptoms of localized peritonitis in the upper abdomen develop, with a low grade of fever and irregular chills, in addition to the previous vomiting, hiccough and prostration.

The physical signs at the outset are simply those of intense tenderness in the upper abdomen, with marked rigidity of the abdominal wall; later on there is commonly an increased fulness or even a visible and palpable swelling extending across the epigastrium and into each hypochondrium. The laboratory evidence is not diagnostic nor does it serve to differentiate acute pancreatitis from several other conditions simulating it. In the blood, there is quickly a high leucocyte count, with an increase in the polymorphonuclears. As regards the urine: first, it does not show sugar except in rare instances, because the pancreas is not uniformly or entirely destroyed; second, the absence of indican is a point of importance in differential but not in direct diagnosis; but third, Cammidge asserts that the urine gives the characteristic pancreatic reaction in all cases of acute pancreatitis in which he has examined for it—nine in all. Other observers, however, have not been so fortunate. The feces show an excess of undigested fat; but the constipation that usually accompanies the disease rarely permits of the use of this method of diagnosis.

Taking all these facts into consideration we must conclude that there is no absolutely certain way to recognize acute pancreatitis clinically. In a discussion on the diagnosis of this disease, before the Section on Medicine of the British Medical Association, at its meeting in August, 1907, Cammidge remarked:[3] "In reading through the recorded cases of acute pancreatitis I was much struck by the small proportion in which a correct diagnosis was made at the bedside prior to operation or postmortem examination. Taking 50 recently reported cases, the authors of which were presumably acquainted with the symptomatology of the condition, I find that 12 were diagnosed as perforating gastric ulcer, 12 as intestinal obstruction, 4 as peritonitis, 2 as appendicitis, 2 as cholecystitis, 1 as strangulated hernia; in 12 no diagnosis was made; and only 5 were correctly diagnosed as acute pancreatitis."

IV. WHAT SHALL WE DO FOR ACUTE PANCREATITIS?

It may be objected that where no positive diagnosis can be made, no plan of treatment is rationally indicated. But that is not altogether true. The symptoms are such that we can promptly arrive at a conclusion, limiting the diagnosis to one of a very few conditions arising in the upper abdomen, namely: acute pancreatitis; perforation of a gastric or duodenal ulcer; perforation of gall bladder; acute intestinal obstruction; or embolism of the superior mesenteric artery. As a matter of fact, each one of these demands surgical interference if life is to be saved, and the indication is clear for laparotomy just as soon after onset as the patient's condition will permit it. This is the only question to be answered—whether to operate early or to wait; whether the patient will be harmed more by the shock of the operation than by the delay. There is no medical treatment for acute pancreatitis, except for the early symptoms, such as morphin for pain and stimulants to tide over the crisis of imminent collapse.

In the discussion already mentioned, before the British Medical Association, Osler said:[3] "Taking a large series of cases, 90 per cent. of those not operated on died, and of those operated on more than 50 per cent. recovered." In the recent work by Mayo Robson and Cammidge on the pancreas, the following statement is made regarding acute pancreatitis:[4]

> Of fifty-nine reported cases of operation during the acute stage twenty-three recovered. Although this is a large mortality, it must be borne in mind that the disease usually ends in death if not treated surgically. The lessons which one may learn from recorded cases are not to wait until the system is overweighted with absorbed poison before operating and not to spend too long a time over the operation.

Shreve Building.

Science and Morality.—The value of science as a support of morality is emphasized by Prof. A. P. Mathews in the *Popular Science Monthly*, March, 1909. "Science," he says, "besides its material conquests of Nature, has developed human pity and compassion. . . . Science has shown the human race to be actually one great family, of which the misery of any part necessarily affects the happiness of the whole." It has also taught the value of truth and candor. Duty or responsibility to others should be the key-word of education. The ideals of science should become the ideals of every one. Efficient moral education must inculcate habits of logical thought. Moral conduct is conduct which increases human happiness. Human affection is the real basis of morals. It has been greatly stimulated by science, and anything which hinders or opposes the development of human affection in each individual and each nation is seen to be necessarily immoral.

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3. Brit. Med. Jour., Oct. 26, 1907, p. 1133.
4. The Pancreas, 1907, p. 404.

POSTOPERATIVE ILEUS *

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For postoperative ileus we should substitute postoperative paralytic obstruction, partial or complete, temporary or permanent; for the word "ileus," in its etymology, has no pathologic significance and should be eliminated from surgical nomenclature.

Partial or complete intestinal obstruction may be either primarily paralytic, or mechanical, followed by loss of motility and peristalsis if operation is delayed.

The primary paralytic form of obstruction may be caused (1) by violent inhibitory impulses transmitted to the muscle walls of the intestines from the central nervous system by the splanchnic nerves through the sympathetics; (2) by impairment or destruction of the energy in the neurenteric plexus, and the myogenic force in the walls of the intestines on which motility and peristalsis depend, resulting from the poisonous action of bacterial enzymes from the intestines or the peritoneal cavity on the nerves or muscles in the bowel walls or from traumatism; or (3) by the combined action of the central inhibitory splanchnic impulses, with impairment or destruction of the energy in the neurenteric plexus, and myogenic force in the walls of the intestines, caused by bacterial poisons or traumatism.

Mechanical intestinal obstruction may be caused by adhesions, constricting bands, volvulus, intussusception, hernia, etc., and if not relieved promptly by operation the bowel above the obstruction becomes dilated and then paralytic, and the ileus can not usually be differentiated from the primary paralytic form.

In order better to understand paralytic bowel obstruction, and also mechanical bowel obstruction, simple, or followed by paralysis, it is necessary to study the research work done on the gastrointestinal tract bearing on its anatomy, physiology, motility and bacteriology. While these observations have been made on animals, usually in good health, it has been shown that in treating such obstructions in man we may, with few exceptions, be governed by the results obtained. It may be urged that these experiments were on healthy animals, while in paralytic or mechanical obstruction we are treating patients with a pathologic condition of the gastrointestinal tract, and, while this is true, it is also equally true that we can not correctly understand the pathology until we learn the normal anatomy and physiology. In studying the anatomy and physiology of the gastrointestinal tract, while we recognize form, we must not forget that to understand better the physiology and motility, and often the pathology, we must make the division by function and not by form from the inlet to the outlet. This is in keeping with the embryology of the digestive tract, which arises from the foregut, the midgut and the hindgut. From the foregut is developed all the tract to a point in the duodenum below the entrance of the bile and pancreatic openings; in this part of the tract digestion is nearly completed, but there is but little absorption. From the midgut is developed the lower part of the duodenum, the jejunum, the ileum and cecum, ascending colon and the transverse colon to the splenic flexure; in this part of the intestine nearly all absorption of digested products results. From the hindgut is developed the splenic flexure, the descending colon, the sigmoid flexure and the rectum, the part of the intestine used for storage and the expulsion of feces and gas.

The motility of the gastrointestinal tract is involuntary, except at the inlet and the outlet, and this is essential, because there must be a voluntary control of what enters the stomach and of what passes out of the rectum. The upper third of the esophagus is entirely controlled by the central nervous system, this control disappearing in the middle third, and is entirely abolished in the last third. The sigmoid flexure is nearly entirely controlled by the central nervous system, and the rectum is entirely so. In all other parts of the tract, the motility is involuntary, and a nervous system, known as Auerbach's plexus, lies in the muscle walls and imparts energy to the circular and longitudinal muscles, giving them force to propel the food and liquids through the tract after fixed laws.

The innervation to the stomach and intestines from the central nervous system is from the vagi, the fibers of which enter and become interlaced in the medulla oblongata, and the splanchnics, right and left major and minor, from the thoracic ganglia, which transmit impulses through the sympathetics. The impulses through the vagi to both stomach and intestines are mainly motor, but under certain conditions inhibitory impulses may be transmitted, but probably these are merely temporary, the inhibition being quickly followed by increased motility. The impulses transmitted through the splanchnics both to the stomach and intestines are inhibitory, and this inhibition may be so increased by injury to the testicles, kidneys, posterior structures of the peritoneal cavity, or in a state of profound asthenia, etc., as, temporarily at least, to control the neurenteric energy and myogenic force in the intestinal walls. When all inhibitory impulses from the central nervous system have been abolished by the division of these nerves, gastric and intestinal peristalsis continues practically normal, and the food products may enter the colon as soon as before such division, and sometimes sooner. It will also be noted that in cases in which the splanchnics are cut the relative characteristic rapid carbohydrate discharge and the slow proteid discharge is not materially changed. This may continue for weeks with but little change in the nutrition of the animal.

If the motor impulses of the vagi be destroyed by vagus section, leaving the splanchnics intact so as to allow the continuous inhibitory impulses, the discharge of both carbohydrate and proteid food is distinctly retarded, but the same relative rapidity of discharge is maintained. This slowness of discharge is, however, partially recovered from after several days.

When all extrinsic impulses are removed by both vagus and splanchnic section, the gastric and intestinal motility is nearly normal, indicating that the relatively slow discharge of food from the stomach and intestines after vagus section is caused not alone by the absence of vagus motor impulses, but also by the depressing or inhibitory influence of the splanchnics.

The characteristic rapid discharge of carbohydrate food, and the slow discharge of proteid food through the pylorus into the duodenum, after destroying central motor or inhibitory impulses, shows that the discharge from the stomach is mainly under local control, the

* Read in a Symposium on Sequelæ of Abdominal Sections, before the American Gynecological Society.

peristaltic wave in the body of the stomach and the antrum being induced by the mechanical irritation of the food, while the opening and closure of the pyloric constriction is under local reflex control, induced by the presence of acid chyme. While in much of the gastric secretion, and probably in all the secretion of the digestive enzymes in the intestines, the glands are activated by a hormone or secretin, we have not been able to show that chemical mechanisms have caused motility in any part of the gastrointestinal tract, this being entirely local reflex in the nerve plexus in the intestinal walls, caused by distention. Why these nervous mechanisms controlling motility should be so adaptable, allowing the food to remain in the stomach, the duodenum, the small intestine and colon, each a sufficient time to complete normal digestion and absorption, we have not been able to learn. We have learned, however, that this orderly march may be easily disturbed by central nervous influences, caused by excitement or shock, or by injury to certain organs, or retroperitoneal structures in the abdominal cavity, or by traumatism to abdominal viscera, especially the stomach and intestines.

That we may better appreciate the meaning and the significance of paralytic obstruction, we should first correctly understand the motility in the intestines as seen in normal peristalsis after food is taken into the stomach, which passes on, observing fixed laws—the laws of the intestines. The food remains in the stomach or any part of the intestines until it is acted on properly. The proximal bowel then develops onward peristaltic waves of contraction, and simultaneously the immediate distal bowel relaxes so as to allow the food to move toward the least resistance. The onward contraction peristaltic waves and the distal relaxation continue in a regular order until the food is passed into the cecum and colon, but these coordinating movements are easily disturbed by irritation or injury to the intestines, and in some cases of intestinal wounds by projectiles the bowel becomes temporarily paralyzed, thereby greatly lessening the amount of fecal matter that would otherwise empty into the peritoneal cavity and increase the dangers of infection. This conservatism is so protective as to allow a patient to recover from a timely operation who would otherwise die. But if the bowel is simply irritated at any point, it immediately contracts in the part oral to this point, and relaxes in the part aboral, which relaxation may extend a considerable distance. In all forms of so-called ileus, temporary or permanent, there must be a partial or complete destruction of peristalsis, which may be restored promptly, slowly, or continue until death. If the obstruction is complete, the peristalsis aboral to the obstructed part may be but little if at all disturbed, and we often see the distal bowel collapsed and apparently in a state of health, when the proximal bowel is greatly distended with feces and gas, its walls filled with infarcts, or in a state of death. We see the same condition in mesenteric thrombosis, in which there is neither mechanical obstruction, peritonitis or inflammation of the bowel walls. "Dynamic" signifies "pertaining to motion as the result of force"; hence the word should be excluded in any form of intestinal obstruction, unless there be cases caused by a temporary or continued spasmodic contraction in the ileocolic sphincter, or in some part of the bowel. Starling may be correct in his observation that, while splanchnic stimulation may cause complete relaxation of both the circular and longitudinal muscles of the small intestine, thereby destroying peristalsis, it produces a strong contraction of the muscle fibers of the ileocolic sphincter. While vagus stimulation may cause an initial inhibition of gastrointestinal peristalsis, quickly followed by an increased motor force, it does not cause contraction at the ileocolic junction. Antiperistalsis is normal in the cecum and the ascending colon, and, while it is contended that there is no antiperistalsis in the small bowel, we have positive proof that in both mechanical and paralytic obstruction the intestinal contents, if not spontaneously expelled through the esophagus, or taken away by repeated lavage, may be forced into the stomach, greatly dilating it, the bowel contents in these cases moving in the direction of least resistance. This is an important fact to remember in abdominal surgery, for lives may be saved by the repeated use of the stomach-pump, just as we may cure a patient with acute dilatation of the stomach, with apparent spasmodic contraction of the pyloric ring, and a loss of motility in the gastric muscle fibers.

While there may be shock in most cases of severe or fatal postoperative paralytic obstruction, this is the result of, and is associated with the absorption of bacterial toxic products from the bowel or the peritoneal cavity into the intestinal walls and tissues of the body. We have proof of this in the fact that when we remove the mechanical obstruction and allow the virulent poisonous contents above in the distended and paralytic bowel to pass onward, the patient may collapse from the rapid absorption in the comparatively healthy bowel below, the epithelial resistance being quickly impaired. It is further shown by the experiments of Ramzi, Kula, Clairmont and Albu, that the subcutaneous or intraperitoneal injection of the filtrate of normal intestinal contents gave nearly negative results, but that the injection of the filtrate from an obstructed and distended bowel caused serious or fatal symptoms, in some cases collapse being marked. The absorption of intestinal gas does not seem to have much effect on man in paralytic obstruction, and, as the bowel distends, the absorption of gas and liquid from the bowel is diminished, and finally ceases. In such cases, however, the absorption of bacteria or of toxic bacterial products from the bowel contents into the bowel walls and other tissues is increased, because of the injury to or destruction of the epithelial layer, through which it is probable bacteria can not pass while it is intact and normal. This absorption from intestinal contents, however, ceases, after death of the bowel. Postoperative peritonitis, which causes intestinal paralytic distention, or probably sometimes narrow constriction in some part of the bowel, is usually caused by the invasion of pathogenic bacteria or their toxic products from the gastrointestinal tract, the pelvic organs, or by infection through abdominal wounds, or by unclean abdominal operations; a frequent contributing cause is extensive intestinal exposure and rough manipulation of the stomach, intestines, peritoneum and mesentery. The rough manipulations of the intestines injure the endothelial layer, the nerve plexus and the mesenteric structures; and tension on the mesentery may result in increased inhibitory splanchnic impulses, thereby causing distention of the bowel by impairing or destroying its motility and peristalsis.

What I have said above and also what follows is intended to apply to both acute and subacute postoperative mechanical or paralytic intestinal obstruction, remembering that the complete mechanical form will

always become paralytic if the obstruction is not promptly removed by surgical intervention; hence it will be seen that mechanical obstruction is always surgical, but that with too much delay surgery is of no avail, for the bowel will then have become greatly distended with liquid and gas, which gradually interferes with the nutrition of its walls, destroying the epithelial barrier against bacterial invasion. Unfortunately we are often unable to distinguish between the early or even the late primary mechanical and the purely paralytic forms. While some surgeons have claimed that the differentiation can usually be made, this is contrary to the experience of nearly all abdominal surgeons of broad experience; for this reason it may be impossible to decide if an operation is necessary until it is too late to be of benefit. In such cases as can be diagnosed, however, the abdomen must be promptly opened, the obstructing cause, whatever it may be, removed when it is possible to do so, the surgeon operating rapidly and committing as little traumatism as possible, for these cases will not resist a long operation or rough handling of the intestines and other intra-abdominal structures. Such patients will often recover if operated on before there is much peritonitis or peritoneal infection, and before the bowel is so distended as to interfere with its circulation and nutrition until its vitality is destroyed by the bacteria and bacterial toxic products absorbed from the intestinal contents. In some cases in which the obstruction can be removed, and in all cases in which it can not for the time being be removed, we shall get better results by performing enterotomy or even enterostomy, so as to give immediate temporary or continued drainage of the bowel contents, thereby removing tension on the walls and lessening the absorption of toxic products, thus giving the bowel a better chance to regain its nutrition and motility. In such cases a subsequent operation may be performed to remove the obstruction and to restore the bowel attached to the abdominal wall to its normal condition.

In operations for postoperative intestinal obstruction, it may be better not to enter the abdomen through the original incision, but to select a point that will probably enable the operator to find and remove the obstruction with the least possible exposure and handling of the intestines; by this means he may avoid opening a wound, often infected, and protect the patient from further peritoneal infection from this source. In the absence of any evidence of the seat of the obstruction, it is better to enter the abdomen in the median line below the umbilicus, for through this opening the focus of trouble may be found more easily than through any other incision; but if the original opening was made in or near the median line, then it may be better to open the cavity through an incision in the outer border or beyond the right rectus in the region of the appendix. If, however, there is evidence that the trouble is in the sigmoid flexure from volvulus or intussusception, it would be better to open on the left side. By practically studying the anatomy of the jejunum, the ileum, the mesentery and the relative positions in the abdominal cavity of the first, second and third parts of the small intestine, so beautifully demonstrated by Monks, we may better understand the part of the bowel presenting, its direction, and how to handle it quickly with the least possible traumatism. While I have operated successfully in many cases for intestinal obstruction, with the abdomen distended, a recital of these cases would be of no practical value and of no interest to the experienced abdominal surgeon. Unfortunately the tendency with many of us is to report a long series of successful operations, often omitting the underlying basic principles on which we are enabled to philosophize correctly. The best surgeon is he who combines a knowledge of embryology, anatomy, physiology, bacteriology, pathology, diagnosis and surgical technic, so as to enable him to reason logically as to what is best in the interest of the patient in any individual case; and, finally, he should be a surgical mechanic. There is no department of surgery to which this more fittingly applies than to the treatment of bowel obstruction from any cause. In true paralytic postoperative obstruction with no suppurative peritonitis, surgery is usually contraindicated; hence the treatment should be rather preventive than curative. In some cases apparently severe, we may have a few days of discomfort, even with pain, nausea, vomiting, obstruction and distention, followed by an uninterrupted recovery without treatment; but a severe toxemia or general peritonitis may develop, which may not improve either under medicinal or surgical treatment. Purgation is contraindicated, and no food should be given in the stomach. If liquid and gas are regurgitated into the stomach and not easily expelled, they should be promptly removed by a stomach-pump, and lavage frequently repeated. It must be remembered that repeated vomiting of small quantities indicates a dilated stomach, a condition similar to what is found in an overdistended bladder. At the same time water through the rectum must be supplied to the tissues and thirst controlled by slow introduction of saline solution after the fashion recommended and described by Murphy. Finally, if gas does not pass from the colon, enemas may be given, care being taken never to distend the bowel too much. In some cases it is possible that the addition of small quantities of alum or carminatives may stimulate peristalsis in the large bowel and cause the expulsion of liquid and gas, leaving the cecum and colon relatively empty, thus encouraging the passage of liquid and gas from the small intestine into the large bowel.

In operations for paralytic or mechanical obstruction with peritonitis, drainage with a rubber tube introduced to the bottom of the pelvis is indicated, and may aid in the elimination of poisonous products. In such cases it may be better to put the patient in the semi-sitting or nearly sitting posture, so as to encourage gravitation of peritoneal liquids into the pelvic cavity, whereby the absorption of bacterial toxic products is reduced to a minimum. Proctoclysis should also be used, putting in the rectum from ten to fifteen pints of saline in each twenty-four hours. In such cases, no food should be given by the stomach for several days or a week, and the patient should be given no solid food for ten days or two weeks. Milk in any form should not be considered a liquid food. After several days we may give nutritious enemas. Finally when gas is passing freely and the bowels can not be moved by enemas, castor oil may be given, but it is usually best not to give saline purgatives. The general belief that we should give remedies internally, subcutaneously or intravenously to establish intestinal peristalsis in paralytic obstruction has no scientific basis. Such treatment is positively contraindicated in cases in which there is peritonitis, inflammation of the intestinal walls or injury to the nerve plexus or muscles in the bowel walls, and may cause death of a patient who would otherwise have recovered. In peritonitis the intestines should be at rest to prevent

the diffusion of infection, and in inflammation of or injury to any part of the bowel wall, rest is essential to encourage repair and a return to the normal anatomic and physiologic condition; hence such remedies could be indicated only in cases in which the paralytic obstruction results from central inhibitory influences through the splanchnics, probably associated with control of the vagi motor impulses, and in which there is but little injury to the nerve plexuses and muscles of the bowel. But we may expect such patients to recover without medicinal treatment if we observe the suggestions above mentioned as to stomach lavage and the use of saline solutions in the colon, as conditions may indicate.

While the experimental work of Meltzer and Auer and other laboratory research investigators has done much to show what medicines influence the motility and the inhibition of the gastrointestinal tract, the results are far from complete, and from this work we have probably gained but little to aid us in the medicinal treatment of paralytic intestinal obstruction. Further research will probably give a clearer insight into the subject, and when we have developed a more correct knowledge of the etiology, the diagnosis and the pathology of paralytic intestinal obstruction, we may then obtain better results from medicinal treatment. We know that ergot causes contraction of the involuntary muscle fibers, and it seems to increase peristalsis, but it is so erratic in its action that it can not be depended on, and may sometimes, as shown by Meltzer and Auer, cause tetanic contractions similar to what may occur in the muscles of the uterus when given during labor or after the birth of the child. Atropin abolishes vagi motor impulses and impairs the spontaneous movements of the stomach and intestines and should not be given.

If a paralytic condition of the bowel is due solely to inhibitory impulses, then hypodermic administration of morphin may be indicated, but we have no means to decide this question. Eserin (physostigmin), hypodermically administered, will increase peristalsis in the healthy animal, but its effect is not lasting, and, while some surgeons have reported successful results from its use in paralytic obstruction, it has no claim for general acceptance; it may be given in doses of 1/40 to 1/60 grain, repeated when necessary to get its therapeutic effect, but never used to excess.

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GASTRIC SYMPTOMS CONSEQUENT ON ARTERIOSCLEROSIS *

HENRY L. AKIN, M.D.
OMAHA

Arteriosclerosis, while it may occur in comparatively young individuals who have an inherited tendency to this sort of trouble, syphilitic or otherwise, or who have become subject to it through an acquired syphilis, is pre-eminently a disease of the later years of life and the mention of it brings to our minds almost involuntarily the picture of an elderly person. And it is of a train of symptoms quite frequently to be encountered in persons of middle age having arterial degeneration that I wish to speak. I have been struck with the frequency with which the various manifestations of arteriosclerotic change in the chest and abdomen are attributed to the stomach and some primary disorder of digestion not only by the laity but by physicians as well, and in view of that fact have thought that it would be a profitable subject to bring to consideration.

The group of symptoms must be one very strongly suggesting that the seat of the trouble is in the stomach, not only because it quite frequently deceives the physician who handles the case, but because it has generally fixed this idea so strongly on the patient's mind that even after a careful examination and the eliciting of facts which make it certain that the vascular system is the one at fault, he can never be fully convinced that the primary trouble is not in the stomach, and keeps harking back to that idea all the time and insisting that, if the stomach were put in good condition, he would be entirely well again.

HISTORIES OF CASES

Perhaps I can not do better than to cite a few case histories here, and then we can seen in what form such cases present themselves and why they so often lead to a mistaken diagnosis.

CASE 1.—*History.*—The patient, E. C., an Englishman, aged 54, was a stockman. His health had been rugged all his life until January, 1906, when he "began to have trouble with his stomach." He habitually ate two meals a day—no breakfast, but a hearty dinner and good supper—and his trouble was something like this: In the morning he felt well, but after dinner if he went out and walked a quarter or half a mile there came on him a feeling of fulness in the epigastrium, a pain under the ensiform cartilage, running down the left arm; he felt oppressed, as if he could not get his breath and must stop for a time; on stopping he would soon get rid of considerable gas by belching, after which he felt well and could go on with no further trouble. If he sat still for half an hour or so after eating he generally had none of this trouble. The same thing occurred again after supper, except that he more frequently remained quiet then. If he drank much fluid with his meals, especially ice-water or tea, he was almost certain to have an attack. He had no sour stomach, heartburn, waterbrash or belching except as stated. He slept well and weighed 190 pounds; his bowels were regular. He was a hearty meat-eater; smoked and drank liquor occasionally. Twenty years ago, before coming to the United States, he was subject to gout and would have attacks of it about every six months.

Examination.—Large man, heavy-set, with ruddy complexion, the picture of health. Heart not enlarged, apex normal, mitral first sound not clear, aortic second sound sharply accentuated, no murmurs audible; pulse 90, apparently high tension. Stomach contents, free hydrochloric acid, 20; total acidity, 35. Urine, 1.016 acid. Thin ring of albumin, no casts.

Course of Disease.—This was the first case of the kind which had come to my attention, and I mistook it entirely, paying all my attention to the gastric symptoms. Three meals a day, a restriction of food and meat, careful mastication, no alcohol or tobacco, relief from business and some medication helped very noticeably to relieve the patient, but relief was not permanent, so that shift was made from one thing to another until a typical angina attack disclosed the true nature of the trouble.

CASE 2.—*History.*—The patient, G. P., a farmer, aged 55, was always well with the exception of occasional attacks of rheumatism until within a year of his present illness. Some seven or eight months before the first examination he began to have "trouble with his stomach;" would feel all right during the forenoon and afternoon, but after supper, no matter how little he ate, he had distress. The stomach filled up with gas so that the patient felt full there, and had a sense of oppression in the chest and a feeling of anxiety for himself, such that he could not lie down, flashes of heat would shoot over his body; he could not sleep and sometimes the condition rose to the height of mild delirium or terrors of one sort or another. Belching up of gas brought immediate relief, which might remain for the night or be followed by another accumulation. This had been going on for months; the patient had been seen and treated for stomach trouble by all the local physicians, then by physicians from a neighboring town, really excellent practitioners, too, with carbolic acid, bismuth and pepsin to allay the fermentation and finally by a consultant from St. Joseph, Mo., who diagnosed the case as dilatation of the stomach (probably without a sufficiently careful physical examination), and prescribed certain stimulants and digestants and dietary regulation, all of which resulted in no benefit whatever.

Examination.—This revealed a double murmur at the aortic valve, evidences of an enlarged and roughened ascending arch, and along with this arteriosclerotic changes throughout the body, and thus the real source of the difficulties in the stomach were explained.

Course of Disease.—Treatment by rest, vasodilators, followed by potassium iodid, and some suggestions as to diet, gave an excellent result, and the patient obtained more relief than he had ever had from the local measures directed toward the stomach. This patient, though a fairly intelligent man, persisted in the belief that the real seat of the difficulty was in the digestive organs and, though driven to accept the fact that there might be something the matter with his heart, too, centered most of his hope on "some medicine to help out his stomach."

CASE 3.—*History.*—The patient, a business man, aged 62, had been all his life a sufferer from "dyspepsia;" that is, at times, gaseous distention of the stomach with nervousness and general distress, but of late years this condition had come on more frequently and grown much more serious. In his severe attacks the stomach was much enlarged—as his attending physician said, "almost to the extent of an acute dilatation," and most of this enlargement took place in an upward direction, thus by pressure greatly increasing the already existing cardiac distress. These attacks and lighter ones also were accompanied by extreme nervousness, fright and a feeling of great anxiety, and a cold sweat broke out over the whole body. Great care had to be taken with the evening meal, lest some food be taken which would more easily give rise to gas formation, and even in spite of the very best efforts this would occur at times. Three years before I saw the patient a new symptom developed, pain in the chest when walking in the cold or up-hill, and a few weeks before I saw him a serious angina seizure. Through it all the patient and his wife believed that the trouble was due to the stomach, and I was called to see if I could not make some suggestions as to diet which would afford relief. The arteries were hard and sclerotic, arterial tension high and a suspicion of an aortic systolic murmur was heard over the aortic area.

Course of Disease.—While some attention was paid to the diet to see that sufficient nutritious food was given to maintain physical strength, the efforts in medication were entirely directed toward relief of the vascular trouble and with very satisfactory results so far, now nearly three years.

* Read before the Omaha-Douglas County Medical Society.

the diffusion of infection, and in inflammation of or injury to any part of the bowel wall, rest is essential to encourage repair and a return to the normal anatomic and physiologic condition; hence such remedies could be indicated only in cases in which the paralytic obstruction results from central inhibitory influences through the splanchnics, probably associated with control of the vagi motor impulses, and in which there is but little injury to the nerve plexuses and muscles of the bowel. But we may expect such patients to recover without medicinal treatment if we observe the suggestions above mentioned as to stomach lavage and the use of saline solutions in the colon, as conditions may indicate.

While the experimental work of Meltzer and Auer and other laboratory research investigators has done much to show what medicines influence the motility and the inhibition of the gastrointestinal tract, the results are far from complete, and from this work we have probably gained but little to aid us in the medicinal treatment of paralytic intestinal obstruction. Further research will probably give a clearer insight into the subject, and when we have developed a more correct knowledge of the etiology, the diagnosis and the pathology of paralytic intestinal obstruction, we may then obtain better results from medicinal treatment. We know that ergot causes contraction of the involuntary muscle fibers, and it seems to increase peristalsis, but it is so erratic in its action that it can not be depended on, and may sometimes, as shown by Meltzer and Auer, cause tetanic contractions similar to what may occur in the muscles of the uterus when given during labor or after the birth of the child. Atropin abolishes vagi motor impulses and impairs the spontaneous movements of the stomach and intestines and should not be given.

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but also with their secretion and absorption as well; this would apply as well to the stomach, and the atony and fermentation resulting therefrom admirably explain the cause of the distention, belching and distress in the stomach so prominent in all these cases.

The variety of ways in which these arteriosclerotic changes may manifest themselves is great and sometimes leads to considerable confusion in the establishing of a diagnosis, as for instance, the pain and tenderness in the epigastrium if combined with vomiting and backache, may closely simulate gastric ulcer and when combined with hematemesis, which is not so very infrequent in abdominal arteriosclerosis, the differentiation is well-nigh impossible under continued observation. Perutz of Munich in a recent article[2] on abdominal arteriosclerosis cites a case in which he had great difficulty to exclude carcinoma of the stomach. It is as follows:

CASE 5.—*Patient.*—A woman, aged 59, who had always done hard work, but who had, nevertheless, always been well till some few weeks before examination, when she was taken with loss of appetite, distressing fulness after eating and increasing weakness.

Examination.—The patient was prematurely aged, pale and feeble, the heart boundaries were normal, the pulse regular, 66 to 72. Through the relaxed abdominal walls no swelling could be felt, but on palpation the abdominal aorta was sensitive to pressure. After nearly every meal the patient complained of distention of the stomach, and the feeling of pressure associated with this extended upward into the throat. Belching relieved the distention. Sometimes the latter was so great that the patient was obliged to leave her bed in order to get her breath. Lately these attacks had come on between meals and also at night. The heart "almost ran away" at these times. Once after such an attack there was irregular pulse. Repeated examinations of the circulatory system in the intervals were without result. There was no occult blood in the stool.

Course of Disease.—All dietetic and medicinal treatment directed towards the stomach was without effect. On trial of diuretin there appeared in a short time a striking improvement. The patient reported that for several days she had scarcely had an attack; she was able to leave her bed and attend to the housework; her appetite was improved. From time to time she had attacks more or less severe, which, however, were always quickly improved through alternation of theobromin, digitalis or nitroglycerin.

To this I can add a report of a case which even more closely resembles cancer of the stomach than that of Perutz and which showed some very curious symptoms:

CASE 6.—*History.*—The patient, J. W., aged 60, a farmer, with tuberculous family history, had been a steady hard worker for years, during which time his health had been good, with the exception of an increasing tendency toward constipation during the last ten years. In January, 1907, just previous to the beginning of his present illness, he weighed 190 pounds. At this time he had an acute illness which lasted some weeks and he was never well thereafter. The symptoms at that time consisted of pain in the left side, passage of dark urine, together with marked weakness and loss of strength. These subsided in a month or six weeks, but the bowels grew more obstinately constipated. The patient's appetite was greatly affected, and he was unable to do any work. Lately he developed a pain in the back and a great deal of distress after eating. There was a feeling of weight or pressure in the stomach and this was soon followed by a peculiar train of symptoms. There was a sensation of heat all over his body, accompanied by profuse sweating, and later a chilly condition; the hands and feet were cold and damp and clammy; the pulse jumped from 45 or 46 to 100-104; there was some dyspnea and panting respiration; the patient was obliged to lie down and cover up. This lasted thirty to forty minutes and he obtained relief gradually. In six months he lost sixty pounds; he had a great distaste for meat and a poor appetite generally. There was occasional vomiting.

Examination.—There was tenderness in the median line of the epigastrium, which was found to follow the course of the aorta, and was especially marked at and just above the navel. The heart was slightly enlarged to the left; there was no murmur, but a sharply accentuated aortic second sound. The arteries were generally stiff and hard, especially the brachial, which was hard and rolled under the fingers like a piece of rubber tubing; it was also tortuous; the pulse in the dorsalis pedis arteries was absent on one side, and the feet and legs were cold. Careful examination for possible malignant growth disclosed no further evidences of same and diagnosis was made of general arteriosclerosis.

Course of Disease.—The patient received frequent small feedings which did away with the symptoms of arterial spasm which had previously troubled him. He was put on small doses of iodids and as the arterial tension was low (112 mg. of mercury) he was given digitalis. Under this regimen he continued to improve considerably and was sent home with instructions to keep it up and to take particular care of himself afterward.

This case was referred to me for investigation because it had been thought to be a malignant condition on account of the rapid loss of weight, the distress after meals, etc. Arteriosclerosis, however, when it comes to a breakdown, as in this case, can be followed by very severe wasting process, and the disturbance after meals was clearly of vascular origin.

DIAGNOSIS

In the matter of diagnosis, it is of the utmost importance not to be led astray by the complaints of the patient as to indigestion, pain in the stomach, distention and belching, and so neglect to obtain a full history and make such a careful physical examination as will reveal the deeper causes of which these digestive troubles are only symptoms. It is not that the diagnosis is in itself so very difficult, but rather that the case presents a picture which the physician has not learned to recognize; though after he has seen and recognized one case, he learns to look for the rest of the chain of symptoms as I have presented them here. In the light of my present experience, it seems remarkable to me that I did not recognize more completely the conditions in my first case, but, at the time, the real cause was overlooked. It seems, then, that the most necessary thing is to call the attention of physicians to the relative frequency of such cases and to urge them to look further than the stomach when they have a patient past middle life complaining of pain in the stomach, distention after eating if he attempts any physical exertion, and dyspnea, relieved by belching of gas; especially when nocturnal seizures, accompanied by distention, heart disturbances dyspnea and great anxiety, are the prominent symptoms. Then an examination of the vascular system will usually clear up the matter entirely. A heart somewhat enlarged, an aortic second sound sharp and snapping, a murmur over the aortic area and rough sounds over the aorta itself, pulsation in the episternal notch, hardened arteries with usually a pulse of high tension, attacks of pain over the heart region radiating to the arm, marked tenderness over the abdominal aorta down to the navel, urine perhaps increased in amount or containing albumin in small quantity, or both increased and albuminous, all these point unmistakably to the circulatory system as the real cause of the trouble at hand.

2. München. med. Wchnschr., May 28 and June 4, 1907.

Such cases are quite similar in the underlying factor of disease, yet they vary sufficiently in their detail to allow them to be divided off into rough classes or groups. For instance, cases 2 and 3 illustrate a type in which all the attention is drawn to the stomach and its supposed misbehavior; most of the trouble comes on at night after the patient has gone to bed, and consists in gaseous distention, pressure upwards on the diaphragm, with still further embarrassment of the laboring heart, extreme nervous distress and anxiety, and at times delirium. Relief is immediate if the patient can belch up the gas accumulated, but this may be only temporary. It is really not surprising, in view of the apparent localization of all the symptoms that the patient should feel that the stomach is entirely at fault and direct his efforts toward improving its function, but the physician who runs across such a symptom-complex will do well to look deeper than the surface and seek some underlying cause for it.

In these two cases there is no hint of any muscular element; that is, the attack comes on almost invariably while the patient is at rest, but in Case 1, the physical effort was the exciting factor without which the trouble did not come on, yet the symptoms when they did appear, still, on the surface at least, incriminated the stomach as the chief offender—pain in the epigastrium, a feeling of fulness and distention there, and immediate relief on gaseous eructation.

Another case will illustrate this type still further.

Case 4.—The patient, Mr. G., aged 63, an Englishman, twenty-five years ago had much trouble with rheumatism and still felt it in his fingers, ankles and feet. Otherwise he had always been well till the last three years. If he went outside after meals and walked or tried to do work of any sort, especially pump water, he was seized with a pain over the lower part of the chest and epigastrium, panted and felt oppressed and was obliged to desist from such effort. He had been treated for some time with stomachics, pepsin and similar medicines, which did not avail, the reason being apparent on physical examination, which showed the heart slightly enlarged to the right and to the left, systolic mitral and aortic murmurs, arteries hardened, tension high.

In these and many other similar cases we have a condition in which the real cause lies in the extensive involvement and serious degeneration of the organs and vessels of one great system, the vascular, while its effects, or at least its most striking and most easily perceived effects are manifested in various ways on another system, the digestive. For not alone is the stomach affected in this class of cases but also the whole of the intestinal tract, in ways even more varied and of quite as much intensity as those we are here considering; and it will no doubt prove to be an instructive and very fruitful quest to endeavor to elicit some of the reasons for this play of symptoms in the abdominal viscera. We are indebted for much of our work in this field to the observations and investigations to such men as Pal, Ortner, Buch, Perutz, Huchard and others, and an examination of some of their work and theories will be of benefit in throwing a light on the question at hand.

Ortner's contribution is the painstaking report of a case of general arteriosclerosis involving especially the superior and inferior mesenteric arteries and through them the intestines[1]; and an exhaustive review of the literature pertaining to this subject. The symptoms in his case had to do largely with the intestines and consisted of severe pains around and below the navel coming on two or three hours after eating, extreme distention with gas, difficulty in breathing, explosive belching, etc. The colon ascendens and transversum were greatly distended and visible through the abdominal wall but there was no sign of peristaltic waves. The severity of the atack was such as completely to incapacitate the patient.

All this Ortner explains on the basis of the anatomico-pathologic findings. The aorta was thickened and calcified, there was a thick deposit of lime salts about the mouths of its branches, especially the mesenteric arteries, and the small branches of these were stiff, inelastic and probably contracted. The result of this was that the intestines did not receive a sufficient quantity of blood from the aorta through the mesenteric arteries and what did come to them was poorly distributed, owing to the changes in the arterioles. The intestinal walls were poorly nourished; the muscular coat, weak and inefficient, was unequal to the task of doing its work, and this showed itself two to three hours after eating, when the intestines began to be called on to carry out their part in digestion, in disturbance of the motility and probably of the secretory and absorptive functions even to such an extreme degree as his case manifested; so that Ortner says that he could not help but be greatly impressed with the similarity which the condition in the intestines presented to that of intermittent claudication in the extremities, which latter he believes to be the result of a narrowing of the arteries and arterioles producing an ischemia of the muscles and consequent poor nourishment and an irritation of the nerve branches to the joints and muscles of the leg.

I do not know of any case in which the symptoms were predominant in the stomach as in those of my series, which has been as carefully worked out as Ortner, but we do know that the arteries supplying the stomach are in no way exempt from arteriosclerotic degeneration and that round ulcer has frequently been seen as a result of the trophic disturbances produced by arteriosclerosis and with all the conditions similar and the resulting symptoms almost the exact counterpart of those produced in the intestine.

I do not think we shall go far astray in assuming that the same causes produce similar symptoms in the one place as in the other, and that the gaseous distention, the belching, the oppression and the nervous phenomena resulting from these conditions are due to impaired motility and secretion, inability of the stomach properly to perform its natural function, resulting from ischemia of the stomach walls produced by the degenerated arteries and their branches.

To the working of these factors, especially in cases in which there is epigastric pain associated with the attacks, Buch adds an irritated condition of the abdominal sympathetic nerves as an important factor in exciting and increasing the distress of this class of patients. In this belief he is joined by Pal, whose researches in this field are very extensive; and as final additional causes both authors are inclined to consider vessel spasm, overaction of the vasoconstrictors due to irritants such as lead, caffein, autotoxemia and possibly nicotin as bearing a not inconsiderable part in the production of the distressing symptoms.

Pal says further that it is his belief that the interruption of the normal supply of arterial blood to the intestines interferes not only with their motility

1. Zur Klinik der Angiosklerose der Darmarterien (Dyspragia intermittens angiosclerotica intestinalis), Samml. klin. Vortr. (Volkmann's), No. 347.

cholelithiasis or the concomitant cholecystitis and cholangitis incident thereto or provocative thereof. It was further shown that, at a certain stage in its progress, chronic pancreatitis becomes an incurable disease or, by extension of the inflammatory process, produces irremediable changes in the islands of Langerhans, with a resulting pancreatic diabetes. If we can so allay our surgical consciences as to ignore the impending dangers of incurable inflammatory changes in the wall of the gall bladder necessitating a cholecystectomy; of obstructive changes in the cystic duct eliminating the gall bladder from the biliary circuit; of crippling pericholecystic adhesions; of suppurative cholecystitis and cholangitis; of perforation of the gall bladder—some one of which is an ever-present danger in every case of gallstones—in the light of our present knowledge of pancreatic disease, we no longer can fail to appreciate the probabilities of an incurable pancreatitis or the possibilities of a fatal diabetes.

That pancreatitis can be caused by the mechanical obstruction of the excretory duct of the pancreas by a calculus lodged in the common bile duct, or in the ampulla of Vater, or by extension of infection from the biliary channels, will be appreciated readily by reference to the results of animal experimentation and to the anatomic relations existing between the common bile duct and the head of the pancreas.

The common duct passing through the gastrohepatic omentum, from its origin by the union of the cystic and common hepatic ducts, runs behind the first portion of the duodenum and enters the head of the pancreas, where, in the majority of instances, it forms a junction with the duct of Wirsung, the principal and most constant excretory duct of the pancreas, and together, through a common channel, the diverticulum of Vater, they open into the duodenum. In practically two-thirds of all individuals the common duct, in its course through the pancreas, runs in a canal in the head of that organ completely covered by pancreatic tissue, while in the remaining one-third it traverses a groove on the posterior surface of the head of the pancreas, and is not covered over by glandular structures. Occasionally the duct of Wirsung empties into the common duct some distance above the opening of the latter into the duodenum, and, again, the common duct and the duct of Wirsung fail to effect a junction in the head of the pancreas, but pass on to the duodenum, where they open by separate but contiguous openings.

It has been shown by animal experimentation that the injection of either pure bile, or of bile mixed with mucus, into the pancreatic duct will cause a pancreatitis, the intensity of the inflammation depending on the concentration or dilution of the bile. The blocking of the duodenal outlet of the ampulla of Vater by a small gallstone, as in the case reported by Opie, necessitates a retrojection of bile into the pancreatic ducts. When the common bile duct and the pancreatic duct unite to form a common channel some distance before opening into the duodenum, this same diversion of the bile stream into the pancreas must occur whenever a gallstone becomes impacted in this common channel.

Opie has shown that the injection of pure or undiluted bile into the pancreas causes an acute pancreatitis, while Flexner has demonstrated that the injection of bile containing a large increment of mucus results in a chronic pancreatitis. While the retrojection of bile into the pancreas must be looked on as necessarily an infrequent cause of pancreatitis, the prevalence of cholecystitis in gallstone disease, with an increased outpouring of mucus, thereby diluting the bile, undoubtedly accounts in a measure for the greater prevalence of chronic pancreatitis, as compared with the acute form Anatomic conditions, however, will not permit the retrojection of bile except in a very small proportion of individuals.

It is in the obstruction of the duct of Wirsung by the pressure of a gallstone lodged in the pancreatic portion of the common duct, or in the ampulla of Vater, that gallstones become of such great etiologic importance in pancreatitis. As a result of the calculous obstruction, the pancreatic fluid, dammed up in the pancreas, overdistends the walls of the pancreatic duct and renders them less resistant to bacterial infection. Infection extending from the bile tract, either directly by continuity of tissue or indirectly through the lymphatics from the gall bladder to the head of the pancreas, readily infects the imprisoned fluid, the distended ducts and the glandular tissues themselves, and a chronic pancreatitis results.

Practically 80 per cent. of the cases of pancreatitis are but terminal events in the course of gallstone disease and its associated infections. It has been established that pancreatitis, occurring in the acute form, may quickly prove fatal, and in the chronic form may lead to a long period of invalidism, eventually terminating in death. Further, the operative results obtained by many surgeons prove that, in the majority of instances, chronic pancreatitis may be cured by the removal of the offending gallstones and the subsequent temporary or permanent drainage of the biliary tract. At what point in the progress of chronic pancreatitis biliary drainage may fail as a curative agent is not established. Neither can it be determined which particular case of gallstone disease will terminate in pancreatitis, nor at what stage of the former the latter will occur.

Routine postmortem examinations have shown that from 6 to 10 per cent. of all patients dying in public hospitals have gallstones. The higher percentage was observed in Germany and was based on the examination of 10,866 bodies. The percentage incidence in England and America is lower than in Germany and is practically the same for the two countries, being about 7 per cent. That but a small proportion of the cases of gallstone disease has been recognized as such during life must, of necessity, explain the great discrepancy between the relative number of diagnoses of gallstones and these postmortem findings. Many unhesitatingly question the accuracy of these results of postmortem examinations as to the frequency of gallstones, because of the fact that they do not tally with their non-operative observations on the living subject. The fact must not be obscured, however, that a positive finding is of far more value than an unsupported negative opinion.

Unquestionably but a minority of the patients afflicted with gallstones suffer from the disastrous terminal events thereof, and consequently few present the pronounced symptoms demanded by our text-books and by many of our surgeons as necessary before a diagnosis is warranted. On the other hand, cases of so-called "indigestion," "dyspepsia," "gastralgia" and "biliousness" are as common as the sands of the sea. In the light of to-day's knowledge, it seems fair to hold that in the great majority of instances these cases of indigestion, of dyspepsia, of ill-defined stomach disease, of biliousness, are, in very fact, cases of gallstone disease giving rise, not to the decided symptoms of terminal

TREATMENT

The treatment (for a time at least) often gives quite satisfactory results. The diet should be restricted to plain, nutritious and digestible food, the evening meal very strictly limited, so as to leave no chance for gas formation, and careful attention paid to such hygienic aids as are suitable to the case—bathing, fresh air, suitable exercise, attention to the bowels, relief from work, etc. The results obtained from the use of drugs in these conditions is, as a rule, very satisfactory, and foremost among these stand the vasodilators, diuretin, a saturated solution of sodium nitrite and nitroglycerin. Diuretin, or theobromin sodiosalicylate, is the most effective and most used, being employed in doses of ten to fifteen grains three times a day. So prompt and satisfactory is its action in cases of this kind that its use has been recommended as a means of diagnosis in doubtful cases; just as we use quinin in suspected malaria and mercury in syphilis; the case cited by Perutz is a good example of this. Its effect, as well as that of the others mentioned, depends on its powerful action in overcoming the vessel spasm and dilating the arterioles so that they allow a greater flow of blood to the sclerosed areas. Of diuretin it is also suggested by Buch that it may neutralize the effect of some toxic agent which tends to irritate the vasomotor centers and cause contraction. Whatever the exact mode of action, its effects are very satisfactory, and its use may be continued for one or two weeks or even longer without harm. Following this the effect may be continued by the use of tincture of strophanthus, five to eight drops three times a day, which seems to have a similar action to the diuretin, so much so that it is used in place of the latter in some cases in which expense is a great consideration.

As in all arteriosclerotic conditions, the iodids have an important place. Potassium or sodium iodid in doses of five to ten grains may be continued over a long period, but it is asserted that the good they accomplish is not due so much to their so-called alterative effects, as it is either to a dilating effect on the vessels involved or to a lessening of the blood density; as to this I can not say.

403 McCague Building.

Delayed Death in Gunshot Wound of Heart.—A remarkable instance of delayed death in gunshot wound of the heart is narrated by Dr. R. S. Magee, in the *Journal of the Kansas Medical Society* for April. A colored man, 18 years of age, was shot in the left heart at close range with a shot gun. The victim turned and walked away into the street and then dropped dead, clasping his own gun firmly in his hand. The distance walked by the man after being shot was, by the coroner's measurement, 41 feet. Yet it was found on postmortem examination that there was "a circular (punchlike) opening, two and one-half inches in diameter, just above and including the left nipple. The fifth rib was broken. The pericardium was torn away and in shreds. The left ventricle was split in two from base to apex, separating it from the interventricular septum completely. Two openings admitting the index finger tip were found in the septum, passing through into the right ventricle. The right ventricular walls were otherwise uninjured. A number of shot, together with one of the gun wads, were found in the muscular substances of the heart. Some shot were found in the base of the left lung, the remainder in the bottom of the left pleural cavity, which also contained several pints of uncoagulated blood. All of the charge passed through the opening in the chest wall, as no shot were found in the skin outside, about the opening."

CHOLELITHIASIS AND PANCREATITIS: THEIR EARLY RECOGNITION *

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The prevalence of cholelithiasis and of infections of the bile tract, as the essential etiologic factors in the production of the great majority of the cases of pancreatitis, demands most thoughtful consideration, as must the fact that pancreatitis, in itself, may become an incurable condition or, by extension of the inflammatory process to the islands of Langerhans, result in a fatal diabetes. The general recognition of these now well-established facts by the profession should lead, not alone to the surgical removal of gallstones in every instance, but, as well, to the performance of the necessary operation at the earliest possible moment, before opportunity is given for the secondary involvement of the pancreas, as a prophylactic measure aimed against a probable pancreatitis and a possible diabetes. If we are to operate successfully on the gall tract, not alone for the prevention of the serious terminal events in that tract depending on inflammation or calculi, but also with the object of forestalling a secondary pancreatitis and a diabetes, we must forever eliminate that ancient and erroneous belief that gallstones may remain in the gall bladder or the ducts for a long and indefinite period, unproductive of symptoms and innocuous as to results. We must go further than this and, improving our diagnostic methods, determine the existence of gallstones at a much earlier period than is now customary.

A complete and revolutionary revision of our knowledge of the symptomatology of gallstone disease is about due—is, in fact, now under way. In the past, as in the present, we have considered as indicative of gallstone disease the terminal symptoms resulting from the complications and sequels of the disease and not the early symptoms of the uncomplicated disease itself. The long-continued presence of gallstones gives rise to certain pathologic conditions and their attendant train of symptoms as, for instance, severe and repeated attacks of biliary colic; impaction of stone in the common duct with or without intermittent jaundice and acholic stools; occlusion of the cystic duct with hydrops of the gall bladder; and we are wont to look on these and other late results and their symptoms as the symptoms of gallstones. Loss in weight is often mentioned as a symptom of gallstone disease, while, properly considered, it is in no sense a symptom of gallstones, but is a symptom, or result rather, of either a pancreatitis or of a suppurative infection of the biliary tract, either one of which is but a late secondary condition arising from the presence of gallstones. Too long and too frequently have we congratulated ourselves on our ability in the diagnosis of gallstones, with the diagnosis based on such late and apparent conditions, when, as a matter of fact, we have failed completely in the recognition and interpretation of the early, or inaugural, symptoms of the disease and recognized only the late and terminal symptoms of the complications and sequels.

As referred to in a previous writing,[1] it has been shown that practically 80 per cent. of the cases of pancreatitis have occurred secondary to, or associated with,

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* Read before the Erie County (Ohio) Medical Society, March 24, 1909.

1. Smith, C. N.: The Surgical Conception of Pancreatitis, Ann. Surg., June, 1909.

while the remaining third seemed thicker, less supple and was of a decided grayish color. The gall bladder contained a mixed bile and mucus, black, thick and ropy, and a quantity of small, soft, sand-like particles. These were the foundation-stones of gallstones yet to be builded.

A valuable symptom, when present, is tenderness on pressure over the posterior surface of the liver, in an area extending from the eleventh dorsal to the first lumbar vertebra, and laterally from a line one inch to the right of the vertebral spines to the posterior axillary line. Tenderness in this area of Boas is present in some cases in which there is absence of tenderness over the gall bladder itself.

The fact must be recognized that the early symptoms ascribed to gallstones are but the symptoms of the inflammation which their presence has provoked. Gallstones lying in the gall bladder, producing or aggravating a cholecystitis, are attended by the general symptoms of the latter and not by any special symptoms attributable to the gallstones themselves, so long as they remain quietly sequestered. A mild degree of inflammation of the gall bladder, however, attended by a varying amount of desquamation of epithelium, the "lithogenous catarrh" of Meckel, is a necessary etiologic condition in gallstone disease. Operation based on the early symptoms under consideration—the symptoms of cholecystitis—may disclose a cholecystitis, but no gallstones. The cholecystitis so found may be the precursor of gallstone formation, or the result thereof, the gallstones at one time present in the latter instance having escaped through the ducts into the intestine and thence from the body.

A history of "malarial fever" in connection with, or subsequent to, or even antedating, these inaugural symptoms, should be critically analyzed in every instance. It will frequently develop that the chills of the supposed malarial fever occurred, not with any regularity, but with decided irregularity. My patients report these chills as occurring once or twice in a given day, then recurring after an interval of from two days to a week, then perhaps daily for a few days, with a subsequent lapse of days between attacks. The chills are followed by fever and sweating. One patient reports these chills, irregular in occurrence, extending over a period of four months, followed by two weeks of profound jaundice, and by four years of indigestion, flatulence, oppression and weight in the stomach after meals. These irregularly recurring chills which are so readily mistaken by the careless observer for the evidences of malarial fever are in reality the symptoms of decided infection of the bile tract or of calculous obstruction of the common duct. Moynihan has called attention to the "steeple" form of temperature curve occurring in acute infections of the biliary tract and in cases of stone passing through the common duct. The temperature rapidly rises to 102, 103 or 105, or even above, and as rapidly falls to normal or below. This rapid rise and fall recurs repeatedly but irregularly.

One young man who recently consulted me gave a history of "ague" extending over a period of two years, with an irritable hacking cough unattended by expectoration, with stabbing pain at the base of the right lung on deep inspiration. During these two years he complained of indigestion, belching, nausea and occasional vomiting. There was a feeling of fulness in the head, of vertigo and of drowsiness. The skin had a peculiar and striking bronzed appearance and yet the patient was insistent in the statement that he had never been jaundiced. There never had been an attack of gallstone colic. The patient had lost fifteen pounds in weight and was so reduced in strength that he could not work more than three days in the week. He had been treated for "ague," "indigestion," "acid dyspepsia" and "pulmonary tuberculosis." In my examination, however, the tuberculin test was negative, while Cammidge's pancreatic reaction was positive. A diagnosis of gallstones with subsequent pancreatitis was warranted.

It scarcely seems proper to speak of symptoms existing for a period of from two to six years as "inaugural symptoms," yet it has been my experience that these mild symptoms do persist for that length of time. In every instance, too, operation has disclosed either the presence of gallstones, the indubitable evidences of their presence in the immediate past, or the presence of marked inflammation in the gall tract. In every instance, also, drainage of that tract has resulted in the abolishment of symptoms.

While exploration, based on these inaugural symptoms of Moynihan, may occasionally lead us into an operation for cholecystitis without gallstones, this certainly need be no cause for regret. The cholecystitis of itself demands relief. The previous continual suffering of the patient, the associated incapacity for continuous and productive labor, and the subsequent postoperative relief, justify the operation. The fact that inflammatory disease of the gall tract, especially of the gall bladder, is so frequently but a precursory event in gallstone formation, still further justifies the measure, if further justification is necessary.

Taken in connection with these inaugural symptoms, however slight they may be, a history of a preceding attack of typhoid fever is strongly confirmatory of the presence of gallstones. In all such cases the Widal reaction should be undertaken and the urine and feces examined for typhoid bacilli. Positive findings will mark the patient as a typhoid-carrier and exploration will almost invariably disclose the presence of gallstones.

The one great stumbling-block in the way of an early diagnosis of gallstone disease is the allurement of jaundice, which seems to have bewitched the judgment of so many medical men, in that they demand its evidence before admitting the presence of gallstones. Jaundice, however, is an infrequent and inconstant event in gallstone disease and, when present, is as a terminal, rather than as an inaugural one. Too frequently, indeed, does jaundice announce the advanced stage of a secondary chronic pancreatitis. It is high time that the medical profession should break away from the fetish of jaundice; that it should recognize the presence of gallstones by their inaugural symptoms; that it should appreciate the gravity of gallstone complications and sequels, and that it should forestall such complications and sequels by the institution of operative procedures immediately following the establishment of a diagnosis.

234 Michigan Street.

Angioneurotic Edema.—S. Seilikovitch, in the *Archives of Pediatrics*, May, states that in his opinion the condition known as periodic, recurrent or cyclical vomiting, often at first mistaken for acute indigestion or obstruction of the bowels, may be diagnosed by exclusion as angioneurotic edema of the stomach. The same holds good in regard to the condition known as "hydrops articulorum intermittens," described by some authors as a distinct disease. Seilikovitch believes that it is simply angioneurotic edema of the joints.

events, but to the mild symptoms of concurrent cholecystitis and cholelithiasis.

A due appreciation of the diagnostic value and accuracy of the inaugural symptoms of gallstone disease, nearly all of which are referred by the patient to the stomach, will result, not only in a most decided and striking diminution in the number of diagnoses of "indigestion," of "dyspepsia" and of "biliousness," but also in a confirmation, by operative exploration, of the accuracy of postmortem findings as to the frequency of gallstone disease.

A few surgeons, operating largely in the pelvis and lower abdomen, have been making, in a desultory way, "touch" examinations of the gall bladder through a low abdominal incision. Failing to determine the presence of gallstones by this long-distance finger-tip touch of the globe of the gall bladder, they have gone on record as questioning the accuracy of postmortem findings as to the relative frequency of gallstones. Small calculi, even in considerable number, lying in a full gall bladder, easily may be overlooked by such palpation, while the exploration of the ducts, difficult at times through a high incision, is, in the great majority of instances, an impossibility through a low incision. Conclusions based on such incomplete attempts at examination are positively void of value.

Until, by either a large number of postmortem observations or an extensive series of complete and painstaking examinations of the bile tract in the living, we are able to controvert the findings of Riedel, Kehr, Recklinghausen and others in Germany, of Voelcker, Brockbank and Cooper in England, and of Mosher and Herter in America, we must accept the statements that from 6 to 10 per cent. of adults in these countries are the subjects of gallstone disease.

During a recent six weeks spent with Mr. B. G. A. Moynihan at the Leeds General Infirmary, I was deeply impressed by the ease and certainty with which he diagnosed the presence of gallstones at a much earlier period than is possible if one is to be guided alone by the symptoms so usually attributable to such disease, and so uniformly emphasized in our text-books and special articles on the subject. By an extensive and critical study of the "pathology of the living" as observed on the operating table, rather than by an unquestioning acceptance and reiteration of the old teachings in pathology, Moynihan has been able to define certain early or inaugural symptoms which precede by a considerable period the common and apparent phenomena so generally held as indicative of gallstone disease, but which we must now recognize as the symptoms of terminal events.

In an address on "Inaugural Symptoms"[2] and in a paper entitled "Cholelithiasis: Its Early Recognition and Early Surgical Treatment,"[3] Moynihan has clearly stated these early symptoms and the underlying conditions for which they stand.

These inaugural symptoms are slight in their intensity, and when considered individually would, with but one or two exceptions, scarcely ever point to the bile tract as the seat of disease. Collectively, even, were it not for the observations made by Moynihan on the living, enabling us to interpret aright their significance, they would be considered, almost invariably, as indicative of gastric disease.

In a rapidly growing series of cases in which I have operated, basing the necessity for the operation on these inaugural symptoms, gastric disease has been found in but one case. In that case, Cammidge's pancreatic reaction being positive, no gallstones were found, but a chronic cholecystitis with pericholecystic adhesions was present, as was a chronic pancreatitis and a prepyloric gastric ulcer.

Of the inaugural symptoms, pain, while present, is not marked, being rather a discomfort, an uneasiness, a flatulence, an ill-defined sensation of tightness, weight and oppression, always referred to the stomach, coming on in from half an hour to three-quarters of an hour after meals and being relieved by belching or vomiting, although vomiting is a rather infrequent event. In two cases in which I recently operated, vomiting, generally occurring before the meal was completed, was a frequent and conspicuous event. In one, the vomiting was preceded, momentarily, by severe pain referred to the stomach. In the other, severe pain was never present; but a feeling of discomfort, of oppression, of shortness of breath, first manifest early in the course of the meal, steadily increased in severity as the meal progressed, until suddenly, preceded by an instant of nausea, vomiting occurred. The one great complaint of this patient was an increasing shortness of breath as the meal progressed. One patient, a boy of 6 years, relieved of his pain by vomiting and having his hunger unappeased, would return to the table and eat again, only to have a repetition of the pain and vomiting. Several of my patients presenting the above-mentioned symptoms, complained also of a sense of discomfort and uneasiness along the free border of the right lobe of the liver, yet this discomfort never approached the dignity of a pain.

If this inaugural pain is at times somewhat more severe than at others, it may radiate from the stomach through to the right shoulder. With the pain, be it ever so slight, frequently comes a feeling of cold, a shiver, a chilliness, never severe, never of long duration, occurring after meals and more often noticed in the evening than at any other time. One of the patients above referred to volunteered the statement: "I so often feel chilly in the evening."

Moynihan justly attaches considerable importance to a catch in the breath as an inaugural symptom of gallstone disease, and I can not refrain from quoting him as follows:

> In such attacks there may be "a catch in the breath"; the patient says that it is impossible for a deep breath to be taken, for, as the chest fills, a sudden stabbing pain is felt which cuts short the inspiratory effort. This spasm of the diaphragm is very characteristic of gall bladder diseases, and often distinguishes them from gastric and duodenal conditions, with which they are apt to be confounded.

Drowsiness, inability to concentrate the mind, "a sensation of weight and fulness in the head, . . . migraine are sometimes noted, especially when the patient is fatigued." Dr. Leonard Molloy, quoted by Moynihan, calls these symptoms "gall-bladder dyspepsia."

While tenderness on deep inspiration, from thumb pressure under the edge of the ribs and against the gall bladder, is present in the later stages of gallstone disease, it is also present in association with the inaugural symptoms and is a most important confirmatory sign of cholecystitis. All of my early cases in which it has been present to a marked extent have shown a decided degree of cholecystitis and, in several cases, cholecystitis without gallstones was found on operation. In one of these latter cases at least two-thirds of the gall bladder wall retained its natural suppleness and its bluish color,

2. Brit. Med. Jour., Nov. 28, 1908.
3. Practitioner, December, 1908.

Considering the appalling array of drugs that have been offered for the treatment of pertussis, one hesitates to make any assertions. This, however, is no new drug, but one of recognized utility, only presented in a form that is new, and that will the better bring its virtues to bear on the site of the disease.

I am quite convinced of its value. To cite one illustration: In a family of three children, I gave it to the two older and, observing a little resistance on the part of the baby, not quite 2 years old, I treated it with other drugs. The two older, whose cases were severe at the beginning, immediately began to improve. The baby grew worse. The mother, convinced of the benefits derived, then used it of her own accord on the baby. In a few days she succeeded in getting it to take the vapor in a satisfactory manner, and it also showed immediate improvement. The chief difficulty I have met is that, after the first week, the child is so much better that the mother neglects to use the medicine systematically.

In a brief way, I wish to mention some other of these modified petrox preparations which I have had made and which, I believe, possess virtue sufficient to warrant their addition to our armamentarium. Incidentally I might mention that in the iodin preparations of liquid petrox, the ammonia is rather of advantage, considering the uses of the preparation.

Benzoin compound is a preparation that I have used in this potassium petrox solution and have found very soothing in acute inflammations of the respiratory mucous membrane.

Guaiac is of accepted value in certain forms of tonsillitis and, dissolved in the potassium petrox solution, can be used more frequently than the alcoholic tincture.

Lately, carrying out the suggestion of Dr. B. Alexander Randall, of using dionin for its absorptive effect on cicatricial tissue, I have had made a 3 per cent. solution of dionin. Filling the Politzer bag with this vapor from the nebulizer, I have forced it into the middle ear through the Eustachian catheter. Where there is sclerosis and an old dry perforation, the nebulizer can be directed into the meatus. The value of this drug has hardly had time to be demonstrated, but this method of administration appeals to me as more thoroughly distributive of the drug than as commonly used.

Other resinous and alkaloidal drugs can doubtless be used in the same manner if desired. In closing I wish to express my appreciation of the experimental work and pharmaceutic skill of Mr. W. G. Nebig, which contributed materially to the degree of success so far obtained.

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SCARF-PIN SWALLOWED BY INFANT

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A case report in THE JOURNAL, April 10, 1909, p. 1180, of a darning-needle extracted from the epigastrium of an infant, brings to my mind a similar case.

Baby A., 9 months old, breast-fed and in every way a healthy child, had in some manner obtained his father's stick-pin from his tie and swallowed it. The father did not miss the pin until ready to go to bed and then supposed he had left it at the barber-shop. The next day, while the mother was changing the baby's napkin, she noticed something protruding from the anus, and on closer inspection discovered it to be the stick-pin with the large part or head of the pin protruding. The pin measured 2½ inches.

CERVICAL DISLOCATION

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I reported two cases of dislocation of the neck in the *Boston Medical and Surgical Journal*, April 25, 1907. Since that date three additional cases have been seen—one a slight subluxation that was self-reduced during the relaxation of sleep; the other two the cases reported below.

Besides these cases may be mentioned one seen[1] in 1903. This makes a total of six cases in the past five years, five of them during the last two years.

These cases occurred in the practice of four different physicians. This experience tends to establish the probability that the condition is not a rare one, and that its apparent rarity may be due to lack of recognition.

It appears to be true with respect to some diseases that as they have become well understood they have apparently increased in frequency. Appendicitis may be mentioned as an example. Another instance is the disease actinomycosis, of which Dr. Maurice H. Richardson says:[2]

"Since Dr. C. A. Porter first called attention to the frequency of actinomycosis in the jaw cases at the Massachusetts General Hospital, the number of instances of this disease appearing in different parts of the body was apparently multiplied a hundredfold."

Is it not possible that dislocations of the neck, particularly subluxations, also occur oftener than is supposed? And that the cases which are thought to be torticollis or stiff neck from "cold" are in reality of this nature? Such, at any rate, is my present opinion. I would, therefore, urge careful attention to the points of differential diagnosis, and especially the application of the appropriate movements of reduction in all cases of suddenly acquired stiff neck.

If the articular process on one side has become displaced forward, the head will be more or less tilted toward the opposite side; it may also be rotated toward the opposite side. This is the position in subluxation. If the unilateral dislocation is complete, so that the articulating process has gone far enough to drop down in front of its fellow articulating process, the head will be turned toward the opposite side, but tilted toward the same side as the lesion.

The method of reducing these dislocations, worked out by G. L. Walton, is to make dorsolateral extension and then rotation to place, usually under complete anesthesia; but I have succeeded in one case in reducing the displacement without anesthesia. This treatment is of the greatest satisfaction to the surgeon and of benefit to the patient.

The following cases are of interest, both having occurred during sleep from a sudden twisting movement:

Fifth Case.—A young woman, aged about 19, awoke suddenly in much pain and unable to turn her head. This condition continued during the remainder of the night and the following day, when I was asked to see her and relieve her "stiff neck." The head was tilted to the left and slightly turned to the left; the muscles on the right side of the neck were tense. On the following morning the condition remained much the same. Examination revealed the spinous process of the fourth (?) cervical vertebra about one-half inch out of line with the others. Under ether anesthesia the head was bent diagonally backward and to the left and then rotated to place. At once the condition of the neck was changed from that of rigid stiffness to one of free mobility. On recovery from the anesthetic

1. Walton, G. L.: Boston Med. and Surg. Jour., Oct. 22, 1903.
2. Boston Med. and Surg. Jour., April 9 and April 16, 1908.

Clinical Notes

ANKYLOSTOMA DUODENALE
(UNCINARIA AMERICANA) *

JOSEPH LEIDY, Jr., M.D.
PHILADELPHIA

Some years ago (1904) the Smithsonian Institution published the collected "Researches in Helminthology and Parasitology," written by the late Prof. Joseph Leidy.[1] The publication consisted of the collected essays and original investigations[2] from 1844 to 1891. Unusual care was observed that the work should be complete in all details, but, as frequently occurs, owing to the vast amount of scientific literature which now burdens the transactions of our various learned societies, the title of one paper was not catalogued, and the communication was lost to the specialist interested in similar lines of investigation. The brief observations were presented under the title, "Remarks on Parasites and Scorpions, May 5, 1886."

Leidy described three specimens of worms obtained from an anemic cat, presumed to be specimens of *Ankylostoma duodenale*, which were sent to him by Dr. Belfield, of Chicago, for determination. He remarked:

> On superficial examination I supposed the worms might belong to *Strongylus tubaformis*, a closely related parasite infesting the cat. The specimens, however, exhibit the same structure of the mouth as is described in the *Ankylostoma duodenale* of man. . . . [description follows].
>
> The finding of this parasite in the cat in this country renders it probable that it may also infest man with us, and is probably one of the previously unrecognized causes of pernicious anemia.
>
> The occurrence of the same parasite in the cat is also of interest, as heretofore it has only been noticed in man.

In reply to the question of Dr. Weir Mitchell as to how the animal gained entrance to the system, Leidy stated:

> It is supposed that ankylostoma gain entrance to man through the drinking-water; and if that is the case the cats probably obtain it in the same way. If cats in this country obtain it from the drinking-water it is probable that with us man may do so.
>
> It is curious that it should be found in the cat; generally we find that similar parasitic worms are found only in animals closely related to one another.
>
> So far as we know, the *Ascaris vermicularis* occurs in no other animal than races of men. The cat has its own ascaris and this is found in various species of cats all over the world. There is another found in the dog, which is also found in the wolf. Again, the ordinary tapeworm of the dog is found in all sorts of dogs. I have a specimen from the wolf in the west, and I have another which Dr. Kane obtained from an Esquimaux dog in the north; as I have said, worms of the same species in the same stage usually only infest animals which are closely related.

The original communication was made to the College of Physicians of Philadelphia and was followed by further observations on *Trichina spiralis* and scorpions from Mexico. The date, May 5, 1886, is of historic interest.

1319 Locust Street.

* Read before the Pathological Society of Philadelphia, May 13, 1909.

1. Researches in Helminthology and Parasitology, by Joseph Leidy, M.D., LL.D., with a bibliography of his contributions to science arranged and edited by Joseph Leidy, Jr., M.D., Smithsonian Miscellaneous Collections, Vol. xlvi (1904).

2. Originally published in Proceedings of the Philadelphia Academy of Natural Sciences and elsewhere.

QUININ INHALATIONS IN PERTUSSIS
WITH A CONSIDERATION OF OTHER PETROX MEDICAMENTS *

H. C. MASLAND, A.M., M.D.
PHILADELPHIA

The physician has possibly no more irritating sense of helplessness than when called to treat a patient with whooping cough. Besought from day to day by a distressed mother for a greater measure of relief, he tries one and another drug, only to realize the inadequacy of them all.

A perusal of the literature demonstrates that quinin, despite all the newer drugs, holds its own. More than a year ago, in looking over some literature on the subject, the proposition to bring quinin for its germicidal effect into immediate contact with the respiratory mucous membrane, attracted my attention.

Michael, forty years ago, recommended the insufflation of quinin and benzoin powder into the nostrils. Litzerich mentions in Ziemssen's Encyclopedia that he tried an inhalation of a solution of sulphate of quinin in one case, but that the child was removed from the hospital too soon for any conclusions to be drawn.

At the present time quinin is usually given internally; when given locally it is in the form of a powder combined with minor drugs, and insufflated into the nostrils. The insufflated powder can reach only the prelaryngeal areas. To me, believing as I do that the infecting germ has its habitat throughout the respiratory mucous membrane, the idea of bringing the drug in contact with the whole tract seemed promising. The frequent use of an acid solution of quinin sulphate, by inhalation as suggested by Litzerich, would be sufficiently contraindicated because of its injurious effect on the teeth. To accomplish this purpose, I experimented with the liquid petrox of the National Formulary. Finding that the ammonia of this preparation caused some irritation of the nasal mucous membrane, I substituted therefor potassium. Using a corresponding portion of potassium hydrate makes a thick solution, requiring warming to liquefy. After considerable experimenting, a solution in which the potassium was considerably lessened in amount was found the most satisfactory.

The following is the stock formula[1] as given me by Mr. W. G. Nebig:

℞.	gm. or c.c.	
Potassium hydrate	29.6	fl.ʒss
Alcohol, q. s. ad	200	fl.ʒiss
Of this add:	5	fl.ʒiss
To		
Oleic acid	10	fl.ʒ3
Liquid petrolatum	25	fl.ʒiss

One ounce of this preparation will readily dissolve 30 grains of the alkaloid quinin. I have directed this to be used in a nebulizer not less than three times daily, preferably oftener. With very young children a mask or canopy over the head may be necessary. Older children will readily take, even ask for it, nebulized directly into the nostrils. In my experience, I have had no trouble in gaining the confidence of the child and being able to give it a concentrated inhalation of the drug.

* Read before the Northwest Medical Society, May 3, 1909.

1. Some preparations are made by dissolving the drug in the alcoholic solution of potash, some, as quinin, in the finished solution. No more alcohol than the amount stated should be used.

New and Nonofficial Remedies

SINCE THE PUBLICATION OF THE BOOK "NEW AND NONOFFICIAL REMEDIES, 1909," THE FOLLOWING ARTICLES HAVE BEEN ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. THEIR ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT AND IN PART ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS TO AID IN THE REVISION OF THE MATTER BEFORE PUBLICATION IN THE BOOK ARE ASKED FOR.

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT SO FAR AS KNOWN IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

(*Continued from page 1199*)

MERCURIC CYANIDE—Hydrargyri Cyanidum.—Hydrargyrum cyanatum (Pharm. Française, edit. 1908).

Mercuric cyanide, $Hg(CN)_2$ is the mercuric salt of hydrocyanic acid.

Prussian blue and mercuric oxide in water are boiled until the mixture is brown; the mixture is filtered, acidified with hydrocyanic acid, evaporated and allowed to crystallize in a cool place. It is also prepared by the action of hydrocyanic acid on mercuric chloride. Colorless or white, prismatic crystals, odorless, and having a bitter, metallic taste (the salt is *exceedingly* poisonous). It is darkened on exposure to light. Soluble at 15° C. (59° F.) in 12.8 parts of water, and in 15 parts of alcohol; in 3 parts of boiling water, and in 6 parts of boiling alcohol; very sparingly soluble in ether.

When slowly heated in a glass tube, the salt decrepitates, and decomposes into metallic mercury and inflammable cyanogen gas, which burns with a purple flame. On further heating, the blackish residue, consisting of para-cyanogen with globules of metallic mercury, is wholly dissipated.

If 1 part of the salt be gently heated with 1 part of iodine in a dry test-tube, it will produce at first a yellow sublimate which afterwards becomes red, and above this a *sublimate* of colorless, needle-shaped crystals.

On adding hydrochloric acid to the aqueous solution of the salt, the odor of hydrocyanic acid is evolved.

A 5 per cent. aqueous solution of the salt should be neutral to litmus paper, and should not yield, on the gradual addition of a few drops of potassium iodide test solution, either a red or a reddish precipitate, soluble in an excess of the precipitant, nor should it yield a white precipitate with silver nitrate test solution (absence of mercuric chloride).

If mercuric cyanide be dissolved in an aqueous solution of sodium chloride the addition of phenolphthalein to this solution should produce no red coloration (absence of mercuric oxide).

Ammonia should not color an aqueous solution blue (absence of copper) nor should a solution of copper give a brown color or precipitate (absence of potassium *ferrocyanide*). The presence of large quantities of potassium sulphate may be demonstrated by igniting, leaching the ash and testing the filtrate with barium. Dilute sulphuric acid should not liberate hydrocyanic acid (absence of potassium cyanide). Ammonia should dissolve mercuric cyanide without producing a white precipitate (absence of oxycyanide). (Pharm. Française, edit. 1908.)

Action and Uses.—Mercuric Cyanide has been reported to be as actively antiseptic as mercuric chloride and to be less irritating; but this has been questioned. It is used locally and internally like mercuric chloride.

Dosage.—Internally from 0.004 to 0.008 Gm. (1/16 to 1/8 grain); locally, solutions of 1-4000 to 1-2000 may be used for applications to the eye or other mucous membrane; 25 to 35 minims of a 1 per cent. solution may be used hypodermically without causing local irritation. Death has occurred from the use of a vaginal injection containing 0.9 Gm. (14 grains) of mercuric cyanide.

In diphtheria and croup it is used in 0.01 per cent. solution and as a gargle or internally in doses of 0.0005 Gm.-0.001 (0.0077-0.0154 grain). In rhinitis fibrinosa it is used on a tampon in 0.04 per cent. solution.

KEFIR FUNGI.—A mixture of bacteria and yeasts capable of causing lactic acid fermentation of milk.

Kefir occurs in the form of white irregular roundish bodies, size of a walnut, with a very rough, furrowed surface, and a tough gelatinous consistency. The substance contains Saccharomyceres cervisiæ (Heyden), Bacillus acidi lactici (Pasteur), Dispora Caucasica (Kern). It acts on milk as follows: Fat, salt and water of the milk remain unaffected. The lactose is gradually decreased and the lactic acid increased. Alcohol is produced along with carbon dioxide. 10 per cent. of the casein is converted into acid albumin and peptones, 10 per cent. into hemialbumose and the rest loses its lime. (U. S. Disp., 19th ed., p. 1540.)

Action and Uses.—Kefir fungi are used for the preparation of fermented milk which contains lactic acid, alcohol, the fats, salt and water of the milk. Kefir milk acts as an easily digestible food in dyspepsia and lack of digestive power. It is also serviceable in the prevention of intestinal putrefaction.

Dosage.—Kefir kumyss may be prepared by adding active kefir grains to fresh cows' milk, kept at a temperature of 21°-27° C. (70° to 80° F.) until the effect of fermentation becomes apparent by the rising of the grains to the surface. The grains may then be strained off, and the milk, which now contains sufficient yeast-cells to insure continuance of the fermentation, left to itself in well-corked bottles.

TRANSFER OF AGENCY.

Stovaine (see New and Nonofficial Remedies, 1909, p. 123). Formerly sold by Walter F. Sykes, New York, is now sold by the Parmele Pharmacal Co.

ARTICLES DROPPED FROM N. N. R.

Salit (Heyden Chemical Works). The Council, having been informed that this product is advertised in the daily papers in Germany, reconsidered its acceptance and decided to omit it from New and Nonofficial Remedies (see Pharmacology Department, this issue).

Migrainin (Victor Koechl & Co., New York). The Council voted to rescind the acceptance of Migrainin for non-compliance with rules 1 and 6 and to omit the article from New and Nonofficial Remedies (see Pharmacology Department, this issue).

(*To be continued.*)

Therapeutics

ACUTE ARTICULAR RHEUMATISM

In the *New York Medical Journal*, August 29, and Sept. 5, 12, and 19, 1908, appears a series of articles on the treatment of this disease. Twelve physicians contribute articles in the discussion of this subject.

For the purpose of analyzing the treatment and arriving at a conclusion of the best management of this disease, it seems best to divide the treatment under three heads; general, local, and specific.

GENERAL TREATMENT

The patient, of course, should be in bed, and it is emphasized that he should remain there several days after the temperature has become normal. Five of the writers insist that the patient lie between blankets; two make this optional; and the remainder allow it to be implied that the patient lies between sheets.

The majority order early purgation, and also give calomel, mostly followed by a saline, and one specifies magnesium citrate. One physician gives calomel in divided doses until purgation, which we do not consider good treatment. Daily movements are advised, with sodium phosphate by one contributor, and Rochelle salts by another, and others say "avoid constipation," or "cause daily movements," without stating how they accomplish this. One prefers to use an aromatic fluid-extract of cascara sagrada (rhamnus purshiana); another uses an aloin, belladonna, ipecac and strychnin tablet. In other words, it seems generally, as is true in the treatment of all infections and all feverish processes, that a daily movement of the bowels should be caused in the pleasantest manner possible with the least possible pain, and without causing diarrhea; calomel or caster oil as a primary purgative, and whether small doses of a saline, or other gentle laxative, should be used, daily, is a matter of individual choice.

All the authors allow plenty of plain water or mineral water, barley water, or oatmeal water. In other words, plenty of water in a disease that causes so much perspiration and requires so much elimination is desirable and advisable. Lemonade with but little sugar is advised by some, and certainly lemons or oranges may be allowed in rheumatism, even by those who believe that

there was noted a marked change in the condition and sensations of the patient. Before the manipulation there was stiffness and pain, afterward complete relief from these symptoms. Deep tenderness in the right side of the neck remained, however, and persisted for several weeks.

Sixth Case.—A young man had had a minor degree of the same trouble twice before during the last six months, with recovery. On awakening, Jan. 24, 1909, he felt pain and stiffness in the left side of the neck. It grew worse during the day. The head was tipped decidedly to the right; the muscles on the left side were tense; the left side of the neck was painful and tender. The diagnosis was subluxation of articular process on the left. Bearing in mind the history of previous attacks which were thought to be of the same nature, and that these slight displacements had been self-reduced, I attempted to correct the subluxation without ether; this was found somewhat difficult on account of the spasm of the muscles, but it was accomplished successfully with immediate relief. A stiff collar was applied. Some tenderness persisted for a few days. The collar was worn at night for some time.

CONCLUSIONS

Many cases, perhaps all cases, of suddenly acquired stiff neck, with distortion, or abnormal position of the head, which position the patient is unable to correct because of the pain produced, are cases of more or less pronounced dislocation of the articular processes of the vertebræ.

In the great majority of these cases the articulating surfaces are but slightly displaced, so slightly that many of the dislocations have been self-reduced during sleep or during the relaxation of anesthesia.

These cases may occur during sleep or from direct trauma, as in football, and particularly from sudden turning of the head, especially if the muscles of one side are tense, as when carrying a heavy weight in one hand.

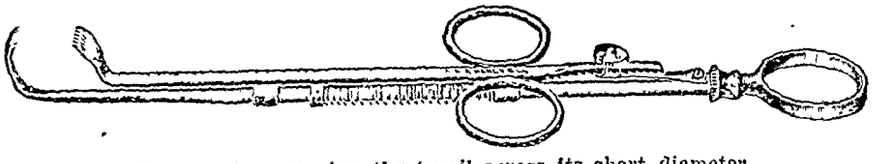
Treatment by laterodorsal extension and rotation is very satisfactory and the extreme cases are probably as amenable as the lighter ones to this treatment.

11 Fairview Terrace.

NEW TONSIL-SEIZING FORCEPS

E. E. CLARK, M.D.
DANVILLE, ILL.

All forceps are intended to grasp the tonsil parallel with its long diameter, a procedure which is often difficult. The forceps here described are intended to grasp



Forceps for grasping the tonsil across its short diameter.

the tonsil across the short diameter, which is always easy. The grasping blades are so shaped and toothed that they take a firm hold and do not tear out. When the jaws are opened to the fullest extent they occupy no more space in the fauces than when opened just a little, which is in marked contrast to other forms of forceps.

When the jaws are closed they lock firmly. If one suddenly desires to remove the forceps, the little button near the two rings is touched, and the coiled spring instantly throws open the jaws. If one desires to use the tonsillotome he can pass the forceps through the ring before grasping the tonsil.

MYOSPASM IN WHICH ONE LEG EXHIBITS TONIC, THE OTHER CLONIC, FORM

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The following history is given somewhat in detail, which, on account of the oddity of the condition, is permissible:

Family History.—This, though very carefully elicited, shows nothing very interesting. Paternal grandfather, maternal grandmother and aunt suffered from articular rheumatism, the second succumbing to cardiac complications. The brothers and sister are strong and healthy.

Personal History.—The patient is 8 years old, pale, of ordinary muscular development and mentality. At twelve months of age he suffered from cholera infantum, and at five years from whooping cough, followed by measles; he has been otherwise fairly healthy and active until the onset of present condition.

Present Illness.—About eight months ago a mosquito-bite on the left foot, becoming highly irritated, caused the patient to limp on that side, also to turn the toes in on the same side. The limp continued about one month and gradually disappeared with subsidence of the inflammatory condition, but the inversion of the toes has persisted. Shortly after this the child fell and bruised his right knee. This caused him to limp on this side, also to invert the toes of the right foot and to keep the right knee joint perfectly rigid. The local injury was of slight degree, as the signs quickly disappeared. Although of over six months' duration the peculiar gait has not been absent for any appreciable length of time. Since the child has been under observation he has been highly nervous, and while on a sedative treatment the local conditions apparently improved, but it was only temporary, as a strict isolation could not be carried out. Wishing to eliminate any undiscovered orthopedic condition I referred the case to Dr. C. H. Muschlitz, whose findings are negative. Later Dr. G. E. Price made an exhaustive neurologic examination.

Examination.—At present the patient is quite irritable and during examinations is extremely nervous. His station is very uncertain but does not display the Romberg sign. When asked to walk he starts off suddenly, the toes of both feet are inverted, and there is marked rotation on the right os calcis. The right knee joint is rigid when the corresponding foot is brought forward, but when the superincumbent weight of the body is brought to bear on it there is an outward and forward rotation, which, with the position of the feet, produce a most extraordinary and awkward gait. This can be completely corrected for a short time by making the patient count rapidly while walking. If the patient is placed in the recumbent posture, the maneuver of flexing the thigh on the abdomen and the leg on the thigh can be accomplished only with difficulty and maintained for but a very short time. The reverse procedure is attended with the same awkward movement as in walking. The left leg does not show the spastic condition or tonic contraction of the other, it being flaccid with at times an irregularly recurring spasm which is slower and more persistent than a choreiform movement, and more coordinate than an athetoid movement. There is no muscular wasting, the legs being about the same size. Both ankle clonus and Babinski's sign are absent and the knee-jerk can not be obtained on account of the spasm. The upper extremities are normal, the grip being equal in both hands and the spasm or twitching are absent. The reflexes are about normal. There are no abnormal conditions to be found in the face and the special senses are not affected. Hysterical stigmata are absent.

Vaginalitis.—Paul Loze, in the *American Journal of Urology*, states that in profuse suppuration of the tunica vaginalis the prognosis is generally serious, as there usually is inflammatory edema of the scrotum, high temperature and a serious general condition. Treatment consists in incision and free drainage.

sules are likely to cause gastric irritation. Sodium salicylate may be administered as follows:

℞. gm. or c.c.
Sodii salicylatis ..... 20| or ʒv
Aquæ gaultheriæ ..... 100| fl.℥iv
M. et Sig.: A teaspoonful, well diluted, every three hours, or as directed.

Or:

℞. gm. or c.c.
Acidi salicyli ..... 10| or
Sodii bicarbonatis siccæ ..... 10| āā, ʒiiss
M. et fac. chartulas 20.
Sig.: One powder, dissolved in water, and drunk while effervescing, every three hours, or as directed.

As soon as the pain is less, the temperature less, the swelling of the joints less, and no new joints become affected, the sodium salicylate should be again diminished in amount and frequency. It should be stopped altogether as soon as the joint symptoms have disappeared, or at the end of a week or ten days. The prolonged use of salicylates is pernicious to the blood and circulation, and serious and protracted anemia and debility have followed its too long use in large doses. On the other hand, as recommended by some of the contributors of the above articles, the substitution, for the salicylate, of potassium acetate, bicarbonate, or citrate, in other words, an alkaline treatment for a series of days, and then again to give the salicylate seems to be very advisable. Potassium citrate is the pleasantest and acts as satisfactorily as either of the other potash salts. It may be given as:

℞. gm. or c.c.
Potassii citratis ..... 40| or ʒx
Aquæ menthæ piperitæ ..... 200| fl.ʒvii
M. et Sig.: Two teaspoonfuls, in water, every three or four hours.

As soon as the urine becomes alkaline, the frequency of the administration of the alkali should be diminished.

In this disease that tends so frequently to recur, and to recur immediately, it is advisable to give two or three days of the salicylate treatment after a week of the alkaline treatment, and then again every two weeks for several times. It has even seemed advisable to give a child who has had rheumatism a week's treatment of salicylate of soda, in the proper dose for its age, every two or three months after recovery from its primary attack, and then once in six months for several years.

While heat, whether dry or moist, and especially the hot-air body treatment may preclude the necessity of using morphin for pain in this disease, more especially perhaps than in some others, pain can not be endured, and the patient should not be allowed to suffer. A disease that causes pain on every movement, voluntary or involuntary, of the body requires a narcotic, and morphin is often needed, and should be given hypodermatically, or by the mouth, depending on the intensity of the pain, or whether or not, it disturbes the stomach when administered by the mouth. It is rare that codein is strong enough, except in large doses, to stop arthritic pain, and there is really very little difference whether small doses of morphin are given or large doses of codein, as the effect produced is similar. If much morphin is administered so that the patient sleeps and is indifferent to his sensations, he must be aroused periodically and urged to evacuate his bladder.

Ordinarily, the coal-tar analgesics should not be used, as, in the first place, if the pain is severe they are not strong enough, and in the second place the salicylates are debilitating, and no other debilitating drug should be given. If there is high temperature in the early part of the disease a few doses of acetphenetidinum (phenacetin) may be administered.

In the treatment of this disease, it should be urged that the heart be watched daily by stethoscopic examination, to note as soon as signs of endocarditis occur. This complication is so insidious that it may not cause symptoms appreciable to the patient. There may, however, be an increase of temperature, as there may be cardiac pain or distress. While it is not the object of this article to describe the treatment of endocarditis, it may be stated that an ice bag over the heart may inhibit the inflammation, that the salicylates should be stopped if endocarditis occurs, and that rest and convalescence after such a complication should be greatly prolonged.

Profuse sweating without fever requires frequent spongings with hot water, may require spongings with warm alcohol, and may even require a nightly dose of atropin, from 1/200 to 1/100 of a grain. If the heart has not been affected, ergot may be given for its aid in checking the profuse perspiration.

Certainly during convalescence, and often best after the first ten days or two weeks, iron should be administered. It should be remembered that the diet advised for rheumatism contains no iron, that the disease is debilitating to all the blood-making organs, that the salicylates and alkalies are both debilitants of the blood, and consequently iron is indicated. Many a prolonged anemia following rheumatism is due to the shortage of this needed element in the body. Iron may be administered in any simple manner, as by a 0.05 gram (or 1 grain) capsule of reduced iron three times a day, or by a saccharated oxide of iron (*Eisenzucker*) three grain tablet, three times a day, or as follows:

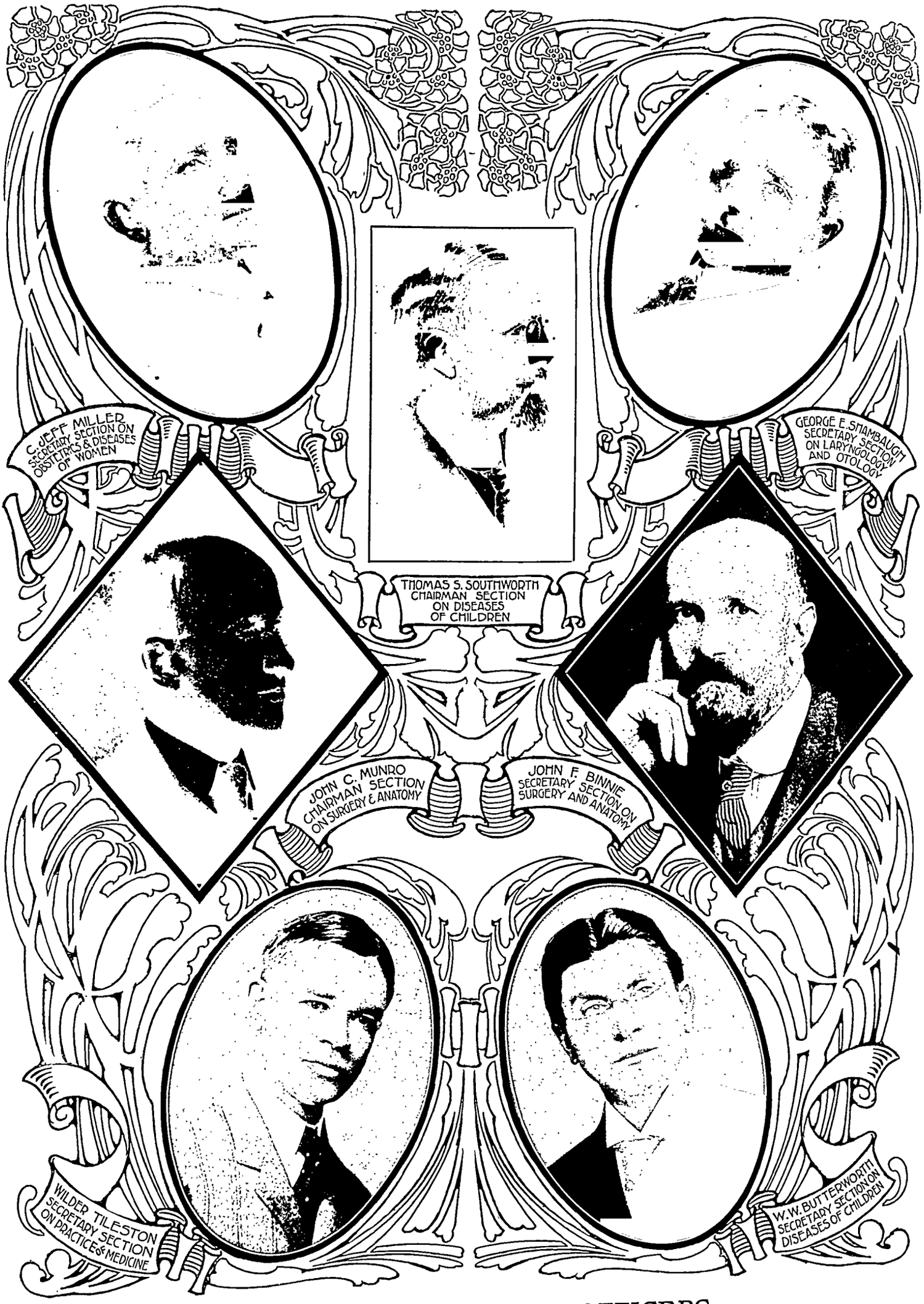
℞. gm. or c.c.
Tincturæ ferri chloridi..... 25| or fl.ʒi
Sig.: Five drops in a small glass of fresh lemonade, three times a day, after meals.

Circulatory weakness during rheumatic fever may be combated with strychnin, with camphor, with aromatic spirits of ammonia, rarely with alcohol, sometimes with caffein, and exceptionally with strophanthus or digitalis, the latter provided that there has not been prolonged high fever and there is no acute endocarditis present.

Lees, in the *British Medical Journal*, Jan. 16, 1909, says that part of the lack of successful treatment of rheumatism with salicylic acid is due to the belief that it is a heart depressant. He insists that it is not detrimental to the heart, and that all unpleasant "side effects" may be prevented by giving sodium bicarbonate coincidently in twice the amount of the salicylate. The initial adult dose is 15 grains, given ten times the first twenty-four hours, or 150 grains for the first day. He would then increase each dose for the second day by at least two grains, viz., 20 grains more than the first day, and would again increase the third day, such increase continuing until the temperature is and remains normal. With each dose of salicylate, however, he would give twice as much bicarbonate of sodium. He believes the cause of the cardiac complication is due to the acids of the toxins of the disease, and that the way to combat this is by alkaline salt, because potash is slightly depressing to the heart, and soda almost not at all.

His initial dose for a child from seven to twelve years of age is 10 grains, and ten doses a day, or 100 grains the first day, and then increased as above.

When the symptoms are all ameliorated, Lees then gradually reduces the twenty-four hour dose of salicylate.



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W. C. Gorgas.

PRESIDENT AMERICAN MEDICAL ASSOCIATION, 1909-1910

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[*For other information see second page following reading matter*]

SATURDAY, JUNE 5, 1909

THE CLINICAL ANALYSIS OF GENERAL SENSATION

From the careful analysis of the nervous symptoms in a very large number of cases of visceral disease and of lesions of the peripheral nerves and spinal cord, a group of English neurologists has recently made important additions to our knowledge of the cutaneous sensations, their peripheral nerves and central conduction paths.[1]

It appears that the afferent nerves of general sensation are very much more complex than has hitherto been supposed. We may consider these pathways in three sections: (1) the peripheral division, carrying the impulses to the surface of the spinal cord; (2) the intraspinal division, and (3) the cerebral division. The limits of the peripheral division do not coincide with those of the peripheral neurone. The justification for this treatment lies in the observed character of the sensory disturbances in the central and peripheral courses of the path, peripheral lesions producing a wholly different type of symptom-complex than central. The explanation for this is to be sought in the phylogeny; the spinal roots being the most conservative part of the path, functional adaptations developed in the course of the phylogeny have taken different directions centrally and peripherally from this fixed point. Observation shows that the root fibers of the segmental spinal nerves and their associated secondary paths are so rearranged within the spinal cord as to bring together fibers conducting the same kinds of impulses from different segments into functionally homogeneous tracts.

In general sensation (exclusive of visceral sensations), Head distinguishes three types of sensibility. These are confused in the spinal roots, but may be separated in the peripheral nervous system, so that a peripheral lesion may affect one and not the others. These systems are:

1. Deep sensibility. This system is preserved after destruction of all afferent cutaneous fibers. Pressure can still be recognized and discriminated. Pain can be felt on application of a measurable pressure and the point of application of the pressure can be localized. Movements of the muscles can be recognized and also passive movements of the joints.

2. Protopathic sensibility. This is essentially punctate sensibility. The sense organs seem to be arranged in definite spots (for heat, cold or pain), but the sensations have no clear local sign. They may be recognized diffusely or else clearly referred to points remote from the spot stimulated, but rarely to the point of stimulation. This is subjectively general diffuse sensibility of a primitive phyletic type. Hair bulbs are innervated from this system. Its loss abolishes cutaneous pain, especially pricking, burning or freezing; sensations of heat from temperatures above 45 degrees C.; sensations of cold from temperatures below 20 degrees C.

3. Epicritic sensibility. Here belong light touch, especially on hairless parts, cutaneous localization, discrimination of compass points and discrimination of intermediate degrees of temperature ("warm" and "cool"). This system appears to be of later phylogenetic origin than the others. In regeneration of nerves it appears long after protopathic sensibility of the same areas of skin.

Painful stimuli may reach the spinal cord either through the peripheral protopathic or the deep peripheral system, and analgesia produced by peripheral lesions is always associated with the loss of the tactile elements of the corresponding sensation complex in the analgesic area. Superficial pain may be lost without loss of deep pain, but never without disturbance of superficial protopathic touch and temperature sensations. But when pain in a region is abolished by a lesion within the spinal cord, all pain (both deep and superficial) may be lost, with no disturbance of either deep or cutaneous tactile sensation. This shows that the protopathic and deep peripheral systems have lost their individuality as such on entrance into the spinal cord, the pain elements of each having been separated from the tactile and related to a common pain tract in the spinal cord.

The spinal redistribution of temperature nerves is even more striking. Destruction of either epicritic or protopathic fibers peripherally disturbs both heat and cold. If epicritic sensibility is abolished, the patient can not discriminate intermediate temperatures, but is sensitive to extremes. If the protopathic also is abolished, even extreme temperatures are lost. If either heat or cold is disturbed in these cases, the other is affected also. But a spinal lesion may abolish either heat or cold separately, and will abolish both intermediate and extreme degrees of sensibility, and that, too, perhaps with no disturbance of any form of tactile sen-

1. See the following works and the literature there cited:
Head, Rivers and Sherren: The Afferent Nervous System from a new Aspect. Brain, 1905, xxviii, pp. 99-115.
Head and Sherren: Injury to the Peripheral Nerves in Man Brain, 1905, xxviii, pp. 116-338.
Head and Thompson: The Grouping of Afferent Impulses within the Spinal Cord. Brain, 1906, xxix, p. 537.
Brief summaries of these papers will be found in Brain, 1906, xxix, p. 742.
Sherren: Injuries of Nerves. New York, 1908, William Wood & Co.

sibility—a condition which could not arise from any form of peripheral lesion. All nerves for heat or cold reach a single spinal path, regardless of the path by which they enter the spinal cord.

The tactile functions are centralized in a similar way in the cord. Light (epicritic) touch is frequently dissociated from protopathic touch and pressure by peripheral lesions; never by central lesions. If tactile sensibility is lost at all in the latter case, all forms disappear from the area affected. Again, passive position and movement are always associated with deep sensibility in general in the peripheral nerves; but in the spinal cord they may be dissociated from all other forms of deep sensibility. In the epicritic peripheral system the discrimination of two points (compass test) is always associated with sensitiveness to light touch; but in the spinal cord these may be dissociated. All forms of tactile sensibility may be perfect in the case of a spinal lesion, and yet the discrimination in question be totally lost. This function has a certain physiologic independence, and these cases show that it has also an anatomic separateness.

The clinical study of the deep, protopathic and epicritic sensations is a matter of great difficulty, because of the rarity of uncomplicated lesions adapted to elucidate their relations and because few patients are either sufficiently well trained in introspection to give an accurate account of their sensations or able to devote the time necessary for their study. Accordingly, Dr. Head submitted himself to a carefully planned nerve lesion in order to be able to study the subjective phenomena at first hand in detail.[2]

In April, 1903, the radial and external cutaneous nerves of Head's arm were divided and during the succeeding five years the phenomena of restoration of function were very carefully studied by Head and Rivers. Immediately after the operation, though the skin supplied by the divided nerves was totally anesthetic, deep sensibility, as defined above, was found unimpaired under the same region. After about 50 days protopathic sensibility began to return, and for nearly a year thereafter the affected area showed deep and protopathic sensibility only, after which time epicritic sensibility slowly returned.

In this manner, opportunity for a very thorough study of the three types of sensibility was afforded. The result is a confirmation and considerable extension of the analysis of cutaneous sensibility previously made on other patients.

A similar but less extensive study of sensations following the division of a peripheral nerve has since been made at the Government Hospital for the Insane at Washington by Dr. Franz.[3]

2. Rivers and Head: A Human Experiment in Nerve Division. Brain, 1908, xxxi, pp. 323-450.

3. Sensations following Nerve Division. Jour. Comp. Neur. and Psych., 1909, xix, 1 and 3.

MEDICINE AND THE LAY PRESS

The relations between medicine and the press form the subject of a thoughtful address[1] by Dr. G. W. Crile, before the Section of Experimental Medicine of the Academy of Medicine of Cleveland. To what is due, he asks, the changed attitude of the public and the press toward medicine, as evidenced in the desire for medical items, which leads the newspapers nowadays to invade the privacy of the physician; whereas, aforetime, it was a fair presumption that such items appearing in the newspapers were not likely to be spontaneous, but had their source in the inspiration of the medical man. Crile sees in this change a realization by the public of the fact that medicine, by the rising tide of science, has come almost unexpectedly into the gravest of responsibilities, both private and public, and finds itself wielding a new and mighty power, affecting not alone the ordering of the life of the individual, but much of the conduct of the municipality and the state. It is making possible a world-wide conquest of the tropics by the white man, influencing commerce and industry at large, and adding year by year to the expectancy of life. In appreciation of this work, the public has invested it with continually growing authority and responsibility, and has provided vast sums for it to be applied not only in the immediate relief and prevention of disease, but in study and research for further means thereof. It is but natural, therefore, that the public should feel itself interested in this great work that is being done under its auspices; and the profession, for its part, concedes the principle of publicity, in certain directions, in the public interest. Exception is taken rather to the form and to the matter of the publication of medical items than to such publication in itself. The trouble between the physician and the editor, in Crile's opinion, lies in a lack of editorial discrimination in the use of medical items and of the appreciation of the rights of physicians. It is clear, however, that it would be impossible in these days to keep medical items of interest from the press, and Crile asks whether, even if it were possible, it would be desirable to do so. The press may be the most powerful means of influencing the public in those beneficent lines so much desired by the medical profession. The employment of a staff physician, therefore, or the submission of medical news to reasonable supervision by an authoritative committee, is suggested by Crile as the means of satisfying the needs alike of the public and the press, without, at the same time, trenching on the rights of the physician.

It is to be remembered, in viewing this subject, that the objection to the publication of medical details rested on the individualistic basis of medicine. It was due almost solely to the likelihood of its abuse as a mode of advertising, and to the consequent insult to the profession as a body that such "commercialism" on the part of any of its members entailed. That objection

1. Cleveland Medical Journal, May, 1909.

still holds good, so far as the medical news relates to the professional capacity, status or doings of individual physicians. But with the growth of scientific medicine, the individualistic basis has been replaced by a communal one, and there has arisen, as Crile points out, a desire in the public for information as to the progress of this science, just as it desires information as to the progress of all other sciences. It is not only permissible, but even desirable, to gratify this natural curiosity, provided that in so doing the interests of the individual are not sought in place of those of the public and of the profession at large.

There is, however, a further limitation, arising out of a regard for the interests of the public itself. Some would reply that the public best knows its own interests. That is not entirely true. If it were, why pass laws to interfere with absolute freedom of contract in regard to hours and conditions of labor, and many other similar points that will readily suggest themselves? This limitation arises from the fact that premature or *inaccurate publication of supposed medical discoveries* may do infinite public harm in various ways; e. g., by arousing unrealizable hopes, and so causing naturally anxious invalids to postpone until too late the resort to *measures of efficiency, and even, may be, to expose themselves* in addition to actual and positive danger. Moreover, not only themselves, but many others also, may be thus exposed, through the creation of a sort of "boom" in unconfirmed and possibly altogether harmful practices, based on theories of the most nebulous nature or on observations or experiments full of inaccuracy or defective in method.

The problem is so to draw the line as to permit of giving the fullest and earliest accurate information to the public, without pandering to the self-seeker or exposing the public to these insidious dangers.

VOLUNTARY CLOSING OF MEDICAL COLLEGES

During the past five years no less than thirty medical colleges, either through merger or otherwise, have voluntarily closed their doors, such action being taken chiefly that higher standards of medical education might prevail. The majority of these were fairly strong schools, and to close them required many sacrifices on the part of their faculties; nevertheless that action was deliberately taken. This was true in Indiana, in Kentucky, in Ohio, at Minneapolis and at other places, and the spirit thus manifested is the greatest promise that fair educational standards will eventually be established throughout this country.

The reasons for the closing of these medical schools are practically the same as those clearly set forth by the dean of another college which has voluntarily closed its doors and which is referred to on another page.[1] The action taken by this Nebraska college is another step in the progress being made toward fewer but better equipped medical schools. When it is considered that a few years ago this country had almost as many medical colleges as all the rest of the world combined and that in general the standards were decidedly lower than in other countries, the mere fact that the number of our medical schools is gradually being diminished is in itself encouraging. But the fact that the medical faculties themselves are voluntarily closing their colleges, or raising their standards, influenced only by their recognition of the needs of modern medical teaching, is far more important. Reforms that come voluntarily from the colleges themselves are bound to be more certain, more enduring and more in the development of an improved medical pedagogy.

The advancement of medical standards during the past few years has been remarkable, and we are now entering on what may prove to be a great era of reconstruction in medical education. The number of medical colleges in five years has been reduced from 166 to 148. On the other hand, with few exceptions, those which remain have been elevating their standards, improving their facilities and methods of teaching, and in every respect have developed into stronger medical schools. The number of medical schools requiring one or more years of college work for admission has increased in five years from 4 to 25 and will be further increased to 48 or 50 by next year.

But the goal is not yet reached. The spirit that has already been manifested by our medical teachers in subordinating personal interests for those of higher educational standards leads us to feel that in a very few years the medical schools of the United States will be equal, if not superior, to those of any other country.

1. Department of Medical Education, this issue.

GELATIN AS A FOOD IN INTESTINAL DISEASE

Gelatin belongs to the group of substances known as albuminoids. It resembles proteids in that it is converted into peptones by digestion, gives the biuret reaction and has many amino acids in common with proteids; it differs from them, among other ways, in not having certain molecules, the *tryptophan and tyrosin* radicles. It is easily digested and readily absorbed by the intestinal mucosa and to many persons is palatable in moderate quantities for a long period of time.

Years ago, Voit, and later Munk, found that, while gelatin was not able entirely to replace proteids, it had great value in sparing them, in this respect far surpassing fats and carbohydrates. More recently others have called attention to the food value of gelatin, especially in certain gastrointestinal diseases. Murlin[1] found that under certain conditions as much as 63 per cent. of the total nitrogen necessary for the body could be supplied in the form of gelatin. Herter[2] discusses

1. Am. Jour. Phys., 1907, xix, p. 285.
2. Infantilism from Chronic Intestinal Infection. Macmillan Co., New York, 1908.

at considerable length its value as food and the advantages it possesses in inhibiting certain forms of intestinal decomposition. Proteids contain the tryptophan and tyrosin molecules, and these substances may give rise to harmful products in the intestinal canal. Tryptophan, for example, in the process of decomposition, forms skatol, indol and other products harmful in excessive quantities; from tyrosin arise phenol derivatives of several varieties which in case of excessive putrefaction may be formed and absorbed in quantities sufficient to produce symptoms of intoxication. Again, carbohydrates can not be tolerated at times because of the excessive fermentation which they induce.

Herter calculates that one ounce of gelatin will yield about 120 calories, or from 10 to 15 per cent. of the entire caloric requirements of the organism in twenty-four hours. This amount of gelatin may easily be added to the milk of a child during the period of twenty-four hours, which at times may be of the greatest importance for nutrition. By applying these facts in a practical way in the feeding in cases of infantilism caused by intestinal intoxication, Herter obtains results which appear to indicate that the value of gelatin in such cases is considerable. For instance, in cases of excessive fermentation in which carbohydrates can not be tolerated, gelatin added to milk, fermented in order to remove the sugar, is found to be an excellent food for the child and also decreases the intestinal decomposition. And on account of the absence of the tyrosin and tryptophan radicles in gelatin the phenol, indol and skatol derivatives may be diminished when it is used to replace the proteid constituents of the food. Thus, without decreasing the nutritive value of the food, the toxic products are greatly lessened.

It is interesting that some organisms (*Bacillus bifidus* and *B. infantilis*), commonly found in the intestinal tract and probably associated with certain gastrointestinal disturbances, will not grow on gelatin media even outside the body, while on carbohydrate and proteid media they flourish luxuriantly. This is another reason for the substitution of gelatin for carbohydrates and a portion of the proteids in infections of this character.

Herter summarizes the value of gelatin as a food thus: It has a considerable degree of caloric value; as a partial substitute for carbohydrates, fats and common proteids, it is valuable: it is incapable of undergoing putrefaction based on the presence of the tryptophan or tyrosin molecules; it is promptly absorbed; it is unable to support certain specific forms of bacterial life associated with certain intestinal diseases.

Medical News

ALABAMA

Convicted of Manslaughter.—Dr. W. L. Noel, charged with killing Jesse E. Roberts, town marshal of Boaz, is said to have been found guilty of manslaughter, May 1, and sentenced to imprisonment for seven years in the penitentiary. The usual notice of appeal was given.

Elections.—At the annual meeting of the Alumni Association of the Medical Department of the University of Alabama, Mobile, the following officers were elected: President, Dr. Samuel G. Gay, Selma; vice-presidents, Drs. Parker J. Glass, Mobile, and W. A. Sellars, Montgomery; secretary-treasurer, Dr. Percy J. Howard, Mobile, and orator, Dr. J. Maxwell Austin, Wetumpka.

ARIZONA

Antituberculosis Association Organized.—On May 22, the Arizona Association for the Study and Prevention of Tuberculosis, in affiliation with the national association, was organized with the following officers: President, Dr. John W. Foss, Phoenix; vice-presidents, K. C. Babcock, Tucson; Dr. John E. Bacon, Tombstone, and Rev. J. E. Critchfield, Phoenix; secretary, Dr. John W. Flinn, Prescott; treasurer, Lloyd Christy, Phoenix, and consulting medical board, Drs. Otto E. Plath, Phoenix; Harry T. Southworth, Prescott; W. Vincent Whitmore, Tucson, and William D. Cutter, Bisbee.

State Society Meeting.—The eighteenth annual meeting of the Arizona Medical Association was held in Prescott, May 18-20, and the following resolutions were unanimously adopted:

Stimulated by the clear and comprehensive study on preventive medicine given this morning by Dr. W. Jarvis Barlow, of Los Angeles, we, the committee appointed to draw up resolutions embodying his suggestions, submit the following:

1. *Resolved*, That the Arizona Medical Association recommends the formation of an Arizona Public Health Association, whose object shall be a study of public health problems, the education of the public and cooperation with the various boards of health of Arizona.

2. *Resolved*, That the Arizona Medical Association recommends the compulsory registration of all contagious and infectious diseases, including tuberculosis and compulsory vaccination of school children and systematic revaccination.

3. *Resolved*, That the Arizona Medical Association recommends that such legal steps be taken as will insure thorough inspection and regulation of the milk supply.

4. *Resolved*, That the Arizona Medical Association appoint a committee of five to report through its official organ, the *Practitioner*, and to the secretaries of the county societies, such information as they can obtain regarding public health legislation and organization and to formulate a definite program to lay before the constitutional convention of Arizona, and that on the recommendation of this committee a special meeting of the Arizona Medical Association be called to adopt such a program.

The following officers were elected: President, Dr. Robert N. Looney, Prescott; vice-presidents, Drs. John W. Foss, Phoenix; William D. Cutter, Bisbee, and Edward S. Godfrey, Tucson; secretary, Dr. John W. Flinn, Prescott; treasurer, Dr. Enoch B. Ketcherside, Yuma, and essayist, Dr. W. Warner Watkins, Phoenix. Phoenix was selected as the place of meeting for 1910.

CALIFORNIA

State Board of Health Appointed.—The governor has appointed the following members of the State Board of Health: Drs. Martin Regensberger, San Francisco; Wallace A. Briggs, Sacramento; Newell K. Foster, Oakland; Frank K. Ainsworth, San Francisco; W. Le Moyne Wills, Los Angeles, and James H. Parkinson, Sacramento.

Alumni Meeting.—At the annual meeting of the Alumni Association of the College of Physicians and Surgeons, San Francisco, May 18, the following officers were elected: President, Dr. Thomas Fletcher; vice-presidents, Drs. Frederick C. Keck, and C. O. Forester; secretary, Dr. Charles M. Troppmann, and treasurer, Dr. Charles A. Faulkner.

Hospitals.—Construction work on the Peninsula Hospital, Palo Alto, has been commenced. The building and grounds will cost $60,000, and the building is expected to be ready for occupancy October 1.——The Dempsey Hospital, Vallejo, is being enlarged, and the new part of the building will contain seven rooms, including a large operating room and accessories.

Personal.—The Board of Health of Fresno has elected the following officers: President, Dr. Warden T. Barr; health officer, Dr. George H. Aiken, and bacteriologist, Dr. Grace Hopkins.——Dr. Neil F. Robinson, Monrovia, who has been seriously ill with appendicitis, is said to be improving.——Dr. Asbury N. Loper has resigned as city health officer of Fresno.——Dr. William J. Hosford, Alameda, is reported to be critically ill as the result of being run over by a bicycle.

State Board Appointed.—The following appointments of members of the State Board of Medical Examiners were announced by Governor Gillette, May 12: Drs. D. L. Tasker, Los Angeles; W. H. Stiles, San Bernardino; William M. Mason, Lodi; Charles Clark, San Francisco; Charles L. Tisdale, Alameda; J. Henry Barbat, San Francisco; William W. Roblee, Riverside; Walter Lindley, Los Angeles; Fred R. Burnham, San Diego; George F. Reinhardt, Berkeley, and W. W. Vanderburg, San Francisco.

Graduation Exercises.—The graduation exercises of the Oakland College of Medicine and Surgery were held May 27. The chief addresses were given by Hon. Henry A. Melvin, Dr. J. Wilson Shiels, San Francisco, and Rev. Homer J. Vosburgh.——The commencement exercises of Cooper Medical College, San Francisco, were held May 11, when degrees were conferred by Mayor Edward R. Taylor, on a class of 21. The address was delivered by Rev. F. W. Clampett.——A class of 11 was presented with diplomas at the thirteenth annual commencement exercises of the College of Physicians and Surgeons, San Francisco, May 19. The presentations were made by Dr. Winslow Anderson, president of the institution, and the doctorate oration was delivered by Hon. S. B. Woods.

DISTRICT OF COLUMBIA

Medical School Commencement.—The annual closing exercises of the Army Medical School were held May 29. A class of 29 was graduated, and the principal address was delivered by Dr. Roswell Park, Buffalo, First Lieutenant, Medical Corps, U. S. Army.

Hospital Contract Awarded.—The contract for the construction of the seven two and one-half story buildings for the Naval Medical School Hospital on the old observatory grounds, Washington, has been awarded to the Thompson-Starrett Co. for $223,205.

Personal.—Dr. William C. Borden has been appointed dean of the Georgetown University School of Medicine, vice Dr. William F. R. Phillips, and Dr. John R. Wellington has been made clinical professor of surgery.——Dr. J. C. Blackstone has been appointed physician to the poor, vice Dr. James A. Watson, retired.

ILLINOIS

Another Osteopathic Bill Defeated.—After one of the bitterest fights that has taken place in the House of Representatives this session, during which an unsuccessful attempt was made to remove the Secretary of the State Board of Health from the floor for leading the opposition to the bill, Senate Bill 351 failed of passage at 2:30 o'clock, May 30, four hours before the adjournment of the General Assembly. It appeared from the first roll-call that the bill had been passed. A verification was then demanded by the opponents of the measure, who charged that members who were not in the hall had been voted. The verified roll-call showed that only 63 members had voted for the bill, or 14 less than a constitutional majority. Senate Bill 351 was probably the most pernicious osteopathic measure ever introduced in Illinois. It aimed to confer on osteopaths "all the rights and privileges of physicians and surgeons"—to quote from the bill, and to require the State Board of Health to license certain osteopaths without examination.

Chicago

Drops Eclecticism.—Bennett College of Eclectic Medicine and Surgery announces officially the change of name to Bennett Medical College.

Fracture Clinic.—Dr. William Hessert conducts a fracture clinic every Saturday afternoon at 2:30 at Alexian Brothers' Hospital, corner Racine and Belden avenues, to which medical men are invited.

Illegal Practitioners Fined.—Mrs. C. Hanson and Stanislaw Sajowski, accused of practicing medicine without a license, are said to have been found guilty and fined $100 each by juries in Municipal Judge Fry's court.

Personal.—Dr. and Mrs. Heman H. Brown have sailed for Europe.——Dr. and Mrs. Arnold C. Klebs sailed for Europe May 23.——Dr. Edward A. Fischkin has been elected president of the Chicago Hebrew Institute.——Dr. William F. Rittenhouse has been elected president of the Menoken Club.

Zone of Quiet Invaded.—The superintendent of Wesley Hospital has made a protest to the Board of Education against the erection of a new school building on the block bounded by State, Dearborn, Twenty-fifth and Twenty-sixth streets, which is within the "Zone of Quiet" established around the Wesley Hospital.

MARYLAND

Personal.—Dr. Daniel B. Sprecher has been elected mayor of Sykesville.——Dr. Victor F. Cullen has been re-elected superintendent of the Maryland State Sanatorium for Tuberculosis.

Bail Forfeited.—In the case of the State versus Dr. William B. Merritt, Easton, under indictment for criminal malpractice, and released on $5,000 bonds, the defendant did not appear when the case was called, May 25, and the bail was forfeited, the judge refusing to reduce the amount of the bond.

Legislation for the Insane.—The State Lunacy Commission has directed its secretary, Dr. Arthur P. Herring, Baltimore, to confer with the attorney general in drawing up two bills for presentation to the legislature; the first of which provides for an appropriation of $400,000 for the erection of additional buildings for 400 new patients at the Springfield Hospital, and for the establishment of a special hospital for the negro insane; the second bill gives the Commission power to transfer insane patients from the county almshouses to the State Hospital, and makes it obligatory on county authorities to obey the orders of the Commission, and provides for supervision of the county asylums by the Commission.

Baltimore

Mayo to Lecture.—It is announced that Dr. Chas. H. Mayo, Rochester, Minn., on the invitation of the Faculty of Physic, will deliver a course of lectures at the University of Maryland in the fall on "Diseases of the Thyroid Gland."

Auxiliary Formed.—The wives of members of the Medical and Chirurgical Faculty of Maryland met at the new Medical Hall May 25, and organized the Ladies' Auxiliary of the Widows' and Orphans' Fund, and entered on an active campaign to raise a large fund, to be immediately available, for this excellent charity. The fund now amounts to $1,074, invested in 5 per cent. securities; it is in the hands of the Faculty, and only the interest can be used for the charity.

Commencement.—The twenty-seventh annual commencement of the Woman's Medical College was held May 27. A class of 5 was graduated, and the address to the graduates was delivered by Dr. Howard A. Kelly. Dr. Guy L. Hunner, president of the board of trustees of the college, presided.——The annual commencement exercises of the College of Physicians and Surgeons of Baltimore were held June 2.——The University of Maryland, at its commencement, May 31, graduated a medical class of 89.

MASSACHUSETTS

Bequest.—By the will of the late William B. Rice, Quincy, $20,000 is devised to the Quincy City Hospital, and the suggestion is made that $200,000 be employed for the establishment of a hospital and home for aged, a home for unfortunates, or a technical school.

Society Meeting.—At the annual meeting of the Essex North District Medical Society, held in Lawrence, May 5, the following resolution was adopted: "The Essex North District Medical Society recommends to its fellows that when called to make an examination with other physicians of a case where testimony in court is likely to follow, they make this examination on the basis of a professional consultation." The following officers were elected: President, Dr. Charles E. Durant, Haverhill; vice-president, Dr. Warren W. Pillsbury, Newburyport; secretary-treasurer, Dr. J. Forrest Burnham, Lawrence; corresponding secretary, Dr. Roy V. Baketel, Methuen; auditor, Dr. William H. Merrill, Lawrence; supervising censor, Dr. Leyander J. Young, Haverhill; censors, Drs. Frank B. Pierce, Haverhill; Robert M. Birmingham, Lawrence; John A. Magee, Lawrence, and John A. Fitzhugh, Amesbury; councilors, Drs. Leyander J. Young, Haverhill; Israel J. Clarke, Haverhill; Charles G. Carleton, Lawrence; Frank M. Snow, Newburyport; J. Forrest Burnham, Lawrence; John A. Douglas, Amesbury; Ernest H. Noyes, Newburyport, and Frederick E. Sweetsir, Merrimac; commissioner of trials, Dr. John F. Croston, Haverhill; nominating councilor, Dr. Israel J. Clarke, Haverhill, and alternate, Dr. Charles G. Carleton, Lawrence.

NEW JERSEY

Camden Physicians Elect.—At the annual meeting of the Camden City Medical Society, Dr. William I. Kelchner was elected president; Dr. William H. Pratt, vice-president, and Dr. Joseph W. Martindale, secretary.

Addition to Sanatorium.—The authorities of the Newark Tuberculosis Sanatorium, which is located at Verona, have purchased for $7,000 twenty-four and one-half acres to be added to the grounds of the institution.

NEW YORK

No Negligence Shown.—In the Supreme Court, April 8, the case of Charles Barton against Dr. John H. Martin, Binghamton, for $5,000 damages for alleged malpractice, was decided in favor of the defendant, and motion for a new trial was denied.

Bequests to Hospitals.—By the will of the late Peter F. Collier, New York City, bequests of $2,000 each annually for ten years were made to St. Joseph's Roman Catholic Hospital, Syracuse, and the Hospital for Incurable Consumptives in the Bronx.

New York City

Position of Pathologist Vacant.—The salaried position of pathologist in the German Hospital and Dispensary is vacant. Application with curriculum vitæ may be sent to the president of the institution, Mr. August Zinsser, German Hospital, Seventy-seventh street and Park avenue.

Personal.—Dr. Hugh Angus Stewart, a graduate of Edinburgh, has been appointed adjunct professor of pathology in the College of Physicians and Surgeons.——Dr. Arthur H. Bogart was struck by a taxicab May 24, and suffered a fracture of the left leg and contusions all over the body.——Dr. Edward O. Park has been appointed attending physician of the fresh air department of the New York Association for the Improving of the Condition of the Poor.

Hospitals Benefited.—The Hospital Saturday and Sunday Association collected for the fiscal year $85,752, or about $2,000 more than for the preceding year. Of this amount $72,000 was distributed among 43 hospitals in Manhattan and the Bronx. Montefiore Home and Hospital for Chronic Invalids received $7,200; Mount Sinai Hospital $7,200; St. Luke's Hospital, $4,411; the German Hospital, $3,439; the New York Infant Asylum, $3,043; the Society of the Lying-in-Hospital, $2,923; Hospital for the Relief of the Ruptured and Crippled, $2,920, and the Post-Graduate Hospital, $2,814. Eight additional hospitals received sums exceeding $2,000, and seven others received over $1,000. Smaller sums were divided among the remaining hospitals.

Quarterly Report of Bureau of Records.—This is a condensed quarterly report of the Bureau of Records, for the quarter ended March 31, 1909. The estimated population for the first quarter of 1909 was 4,564,792; for 1908, 4,422,685; the deaths in 1909 numbered 19,058; in 1908, 20,306; the death rate for 1909 was 16.94; for 1908, 18.43; the corrected death rates (non-residents and infants under one week not included) for 1909 was 16.04; for 1908, 17.24; the births in 1909 numbered 30,185; in 1908, 32,655; the marriages numbered in 1909, 9,632; in 1908, 9,557; the stillbirths in 1909 numbered 1,740; in 1908, 1,927. The total number of deaths in January, 1909, was 6,297; February, 5,743; March, 7,018; a total of 19,058, giving a death rate of 16.94 per 1,000 of the population against an average of 20,531 deaths and a death rate of 20.04 per 1,000 for the corresponding quarters of the preceding five years, a decrease of 3.10 points. If the numbers of deaths from the principal causes and at certain age groups are compared with those of the preceding quinquennial averages, corrected to correspond with the increase of population, the following increases and decreases will be found: Decreases—Typhoid fever, 23; smallpox, 1; measles, 33; scarlet fever, 54; whooping cough, 2; diphtheria, 80; influenza, 180; pulmonary tuberculosis, 323; other forms of tuberculosis, 57; meningitis, 305; cerebrospinal meningitis, 227; apoplexy, etc., 605—latter due to more accurate certification of cause of death—acute bronchitis, 180; lobar pneumonia, 890; bronchopneumonia, 140; diarrheal diseases under 5 years of age, 68; Bright's disease and nephritis, 306; old age, 79; violent deaths, 160 (deaths by accidents, 150; deaths by homicides, 20); congenital debility, 89; under 1 year of age, 404; under 5 years of age, 813; between 5 and 65 years, 2,320; 65 and over, 354. Increases—Cancer, 40; organic heart diseases, 156; suicides, 10.

NORTH CAROLINA

Commencement.—At the annual commencement of the Leonard School of Medicine of Shaw University, Raleigh, recently, a class of 23 was graduated.

Personal.—Dr. James R. Reitzel, High Point, was seriously injured in a runaway accident recently.——Dr. W. R. McCain, formerly of Waxhaw, S. C., has located at Charlotte.——Dr. E. C. Laird, formerly of Chase City, Va., has located at Greensboro.

District Society Meeting.—The third annual meeting of the Sixth District Medical Society was held in Chapel Hill April 29. Dr. George W. Long, Graham, was elected president; Dr. Isaac H. Manning, Chapel Hill, vice-president, and Dr. James M. Templeton, Cary, secretary.

State Society Meeting.—The annual convention of the Medical Society of the State of North Carolina will be held at the Battery Park Hotel, Asheville, June 15-17. The State Board of Medical Examiners will hold its annual examination at the same place, beginning June 9.

Communicable Diseases.—During April, 87 of the 95 counties of the state reported contagious diseases as follows: Measles, 29 counties; whooping cough, 47 counties; scarlet fever, 23 counties; diphtheria, 23 counties; typhoid fever, 25 counties; malarial fever, 6 counties; influenza, 18 counties; pneumonia, 63 counties; cerebrospinal fever, 4 counties; mumps, 5 counties; roseola, 1 county; chickenpox, 2 counties, and smallpox 22 counties.

Health Superintendents Elected.—Dr. James L. L. McCullers, McCulers, for Wake county; Dr. J. Rufus McCracken, Waynesville, for Haywood county; Dr. Daniel E. Sevier, Asheville, for Buncombe county; Dr. William S. Anderson, Wilson, for Wilson county; Dr. Marvin L. Smoot, Spencer, for Rowan county; Dr. Lawrie J. Arnold, Lillington, for Harnett county; Dr. John W. Wallace, Concord, for Cabarrus county, and Dr. J. K. Pepper, Winston-Salem, for Forsyth county.

Optometry Examiners Appointed.—The governor has appointed a state board of examiners in optometry as provided for by the recent session of the legislature. In the statute creating the board, optometry is defined as "the employment of any means other than the use of drugs, medicine or surgery for the measurement of the powers of vision, and the adaptation of lenses for the aid thereof." The passage of this act was unfortunate, will, it is believed, tend to lower the professional standard in the state, and emphasizes the need of alertness on the part of the legislative committee of the state society.

OHIO

Alumni Election.—At the election of the Starling-Ohio Medical College Alumni Association, May 18, Dr. A. C. Elder was elected president; Dr. Maybelle Richards, secretary, and Dr. Robert Drury, treasurer.

Tuberculosis Hospital to Be Erected.—It has been decided to erect a tuberculosis hospital for Franklin county to cost $150,000, and to accommodate 150 patients. The present hospital is inadequate and there are already nearly 80 on the waiting list.——At a meeting of delegates from Montgomery, Preble, Greene, Miami, Darke and Shelby counties, held in Dayton, May 18, it was decided to establish a district tuberculosis sanatorium at the Brookside Sanatorium on the Covington Pike, near Dayton.

Commencement Exercises.—At the annual commencement exercises of the Cleveland College of Physicians and Surgeons, Medical Department of Ohio Wesleyan University, May 20, a class of 16 was graduated. The faculty address was delivered by Dr. Milton J. Lichty, and the commencement address by Rev. Frank W. Luce, and Rev. Herbert Welch, president of the university, presented the diplomas.——A class of 50 was graduated from the Starling-Ohio Medical College, Columbus, May 18. President O. W. Thompson of the Ohio State University presented the diplomas, and Rev. Washington Gladden delivered the annual address.

Personal.—Dr. Starling Loving, Columbus, of the class of 1849, Starling Medical College, was the guest of honor at the reunion and banquet of the class of 1898, May 18.——Dr. Edward V. Hug has resigned as a member of the staff of St. Joseph's Hospital, Lorain.——Dr. Ira J. Mizer, day physician at the state penitentiary, Columbus, has resigned.——Dr. Harry D. Belt, Kenton, has been commissioned Major Surgeon of the Second Infantry, Ohio N. G., vice Major Franklin B. Entrikin, Findlay.——Dr. E. H. Rorick, superintendent of the Athens State Hospital, has resigned.——Dr. John F. Jones, Columbus, has been made chairman of the Columbus-Lincoln Centenary Committee.

Cincinnati

Donation to Hospital.—Nicholas Walsh, Cincinnati, has donated $1,000 to St. Elizabeth's Hospital to be used for the construction of a laboratory for the institution.

Personal.—At the meeting of the faculty of the Ohio-Miami Medical College, May 10, Dr. E. Otis Smith was elected secretary.——The Academy of Medicine on May 17, presented the names of the following ten physicians to the mayor, from which the new health board is to be selected: George A. Fackler, Julius H. Eichberg, Samuel E. Allen, Allan Ramsey, David I. Wolfstein, Charles H. Castle, Christian R. Holmes, John H. Landis, Alfred Friedlander, and John E. Griewe.

OKLAHOMA

Fires in State Asylum.—Fire at the Oklahoma Hospital for the Insane, Fort Supply, April 14, due to a prairie fire, destroyed several buildings and caused a loss of $75,000. By the exertion of the attendants a panic was averted, and no casualty occurred. Another fire occurred a day or two later

which caused small damage, and a third fire, April 12, destroyed the main hospital building. No lives were lost, but it was necessary to carry 56 of the 59 patients out of the building.

OREGON

Commencement.—Degrees were conferred on a class of 15 graduates of the Medical Department of the University of Oregon by President E. L. Camp of the University, May 3.——The annual address was delivered by Prof. Samuel E. Elliott, and the charge to the graduates by Dr. Robert C. Yenney.

Personal.—Dr. Esther C. Pohl, health officer of Portland, has resigned.——Dr. and Mrs. Luther H. Hamilton, Portland, have returned from Europe.——Dr. John N. Smith, Salem, has been appointed physician of the state penitentiary.——Dr. Osmon Royal, Portland, has been appointed a member of the State Board of Medical Examiners, vice Dr. Byron E. Miller, Portland, retired.

To Build State Sanatorium.—The governor on May 22 announced the appointment of the following members of the tuberculosis commission: For four years, A. L. Mills, Portland, and Robert Booth, Eugene; two years, Mayor George F. Rogers, Salem, and Leslie Butler, Hood River. The commission will supervise the erection of a sanatorium for the treatment of tuberculosis, for which $20,000 was appropriated by the legislature. The act also carries an appropriation of $25,000 for maintenance of the institution.

PENNSYLVANIA

Susquehanna Officers Elected.—At the meeting of the Susquehanna County Medical Society, held in Montrose, May 11, the following officers were elected: President, Dr. H. Hewitt Hooven, Harford; vice-president, Dr. Asa L. Hickok, Rush; secretary, Dr. Edward R. Gardner, Montrose; treasurer, Dr. John G. Wilson, Montrose, and censors, Drs. J. G. Wilson, Abram E. Snyder, New Milford, and Arthur J. Taylor, Hopbottom.

Railroad Fatalities Increase.—The report of the state railroad commission on accidents on the railroads of Pennsylvania, during the three months ended March 31, shows a total of 1,999 casualties as compared with 1,998 in the corresponding quarter of last year. The fatalities number 236 as against 145 for the same period in 1908. Of the persons killed, 74 were employés, 5 passengers, and 144 trespassers. Of the injured, 1,369 were employés, 153 passengers, and 162 trespassers. As compared with a year ago there was an increase of 92.77 per cent. in the number of trespassers killed and a decrease of 31 per cent. in the grade-crossing fatalities.

Antituberculosis Campaign.—The North Penn Clinical Society has just closed a successful antituberculosis campaign of four weeks, the pioneer effort in that section along the lines of public education. The exhibit covered six towns in four weeks, the campaign opening at Quakertown, April 24, and closing at Lansdale, May 19, with a total attendance of 18,000. The exhibit remained two days in each town and included personal demonstrations during the day and lectures in the evening by the recognized state and national leaders in the work. The demonstrations were conducted by the various members of the society and local physicians. A number of the towns have followed up the work by organizing local societies to cope with local conditions. The executive committee of the society was as follows: Dr. Walter H. Brown, Richlandtown, chairman; Dr. Francis E. Borzell, Cressman, secretary and treasurer; and Drs. A. C. Biehn, Quakertown; Mahlon B. Dill, Perkasie; Alfred E. Fretz, Sellersville; LeRoy H. Saxe, Telford; Morris B. Oberholtzer, Souderton; and John J. Bauman, Lansdale.

Philadelphia

Typhus Patients Recovered.—The two men who came from Russia on the steamship *Russia*, April 11, and were seized with typhus fever soon after landing, were discharged from the municipal hospital, recovered, May 12.

Floating Hospital For Poor Babies.—Following the lead of Boston and other cities in the operation of a floating hospital for babies of the poor, plans are being made to start a similar institution in this city. One hundred children will be cared for daily on the ship. The total cost for the season is estimated at $1,000. Mr. Robert K. Cassatt has offered the use of a properly equipped barge for the purpose.

College Commencement.—The fifty-seventh annual commencement of the Women's Medical College of Pennsylvania was held May 26, when 24 graduates received the medical degree and the annual address to the class was delivered by Dr. Frederick P. Henry. Dr. Clara Marshall, dean of the college, delivered a congratulatory address, and Mary E. Mumford, president of the college, conferred the degrees.

Bequests.—The will of the late Samuel E. Appleton bequeaths $10,000 to the Episcopal Hospital, to be used as an endowment for two beds as a memorial to his deceased wife.——The will of the late Anna N. Murpha bequeaths $2,000 to St. John's Orphan Asylum; $2,000 to St. Joseph's Orphan Asylum; $2,000 to St. Vincent's Home; $2,000 to the Little Sisters of the Poor; $1,000 to the House of the Good Shepherd, and $1,000 to St. Joseph's Home for Boys.

Ex-Resident Physicians Organize.—A reunion of former resident physicians of the German Hospital was held at the University Club, May 7. An organization was effected and the following officers were elected: President, Dr. Henry F. Payne; vice-president, Dr. Isador P. Strittmatter; secretary-treasurer, Dr. John C. Gittings, and historian, Dr. A. P. Miller.——The ex-resident physicians of the Samaritan Hospital, at a meeting held May 26, elected the following officers: President, Dr. William McKeage; vice-president, Dr. William A. Hitchler; secretary and treasurer, Dr. Ernest B. Mongel.

Personal.—The medical and pharmaceutical fraternity of the Fifteenth Ward gathered at the home of Dr. Reuel Stuart, who has practiced medicine for fifty-four years in the city, in honor of Dr. Stuart's eightieth birthday anniversary.——Dr. Ferdinand G. Angeny, formerly of Philadelphia, but more recently of Phoenix, Ariz., has gone to Avon-by-the-Sea, N. J., for the summer, and will return to Phoenix, in September.——Dr. Alexander C. Abbott, chief of the bureau of health, has resigned to resume the duties of professor of hygiene and bacteriology in the University of Pennsylvania.——Dr. A. C. Abbott was presented with a handsome colonial clock by the attaches of his office on his retirement, June 1.——Dr. Charles R Heed sailed for Europe May 26.——Dr. George L. Megargee was given a farewell dinner by his medical friends, May 26, and was presented with a silver loving cup.

Municipal Hospital Opened.—Philadelphia's new Hospital for Contagious Diseases, comprising a group of 46 buildings, located on a tract of 58 acres at Second and Luzerne streets, was opened for formal inspection by Mayor Reyburn and the Director of Public Health and Charities, Dr. Neff, June 1. At the present time 21 of the 46 buildings are completed and will be ready for occupancy July 1. The buildings yet to be built will be exact duplicates of the buildings now ready, with the exception of the administration building and storehouse. The administration building is a three-story brick structure, provided in the rear with a three-story storehouse, which contains an ice manufacturing plant with a capacity of ten tons a day. There are four general wards for scarlet fever patients, each two stories high, a private ward for pay patients and an observation building, comprising fourteen small houses under one roof. The buildings are connected by an outside corridor, several hundred feet in length, by means of which entrance may be made to any one building without passing through another. Six brick cottages are provided for the isolation of malignant cases. Each is a hospital in itself with a ward for two to four beds; has a separate entrance and is provided with a nurse's room and diet kitchen. The observation building contains 14 miniature hospitals under the same roof, each separated from the other. These will be used to observe patients until a positive diagnosis has been made, when they will be transferred to their special department. The wards are so lighted that direct rays of light never fall on a patient.

TEXAS

Sanitarium Located.—The locating committee of the West Texas Baptist Sanitarium has decided to accept the bid made by Stamford, which offered $56,000.

District Society Meeting.—At the annual meeting of the Northwest Texas Medical Association, held in Mineral Wells, April 20, Dr. Wade H. Walker, Wichita Falls, was elected president; Dr. Harold L. Warwick, Fort Worth, vice-president, and Dr. E. Perry Bass, Mineral Wells, secretary.

Ambulance Companies.—Under the reorganization of the medical corps of the Texas National Guard, San Antonio, Dallas and Houston are named as district headquarters, at which detachments of the hospital corps composed of twenty men each will be established. The detachment in San Antonio is under the command of Capt. Robert L. Dinwiddie, M.D.; that in Dallas is commanded by Lieut. Fred B. Johnson, M.D., and that in Houston by Major J. Lindsey Short, M.D.

UTAH

Hospital Notes.—Mrs. Thomas D. Dee, Ogden, has decided to build a hospital in that city in memory of her husband, to cost at least $100,000, and to accommodate from seventy-

five to one hundred patients.——Drs. Thomas G. Odell, Murray, and Hardie Lynch, Salt Lake City, have leased and reopened the Murray General Hospital.

Health League Organized.—The Utah Health League, the object of which is to promote public health through sanitation and the prevention of disease, has been organized in Salt Lake City with the following officers elected by the board of directors: Dr. James E. Talmage, Salt Lake City, president; Dr. Fred E. Clark, Logan, vice-president, and Mrs. C. H. McMahon, Salt Lake City, secretary-treasurer.

State Board Election.—At a recent meeting of the newly appointed Board of Medical Examiners of the State of Utah, the following officers were appointed: President, Dr. David C. Budge, Logan; secretary, Dr. George F. Harding, Salt Lake City, and treasurer, Dr. Amasa S. Condon, Ogden. The regular meetings of the board of examiners are held on the first Monday of January, April, July and October.

Personal.—Dr. Herbert S. Pyne, Provo, has been elected secretary and executive officer of the Utah County Board of Health. The other medical members of the board are Drs. J. Franklin Noyes, American Fork, and Albert G. Stoddard, Spanish Fork.——Dr. George A. Dickson, Ogden, has been elected physician of the State Industrial School, his term of office to begin July 1.——Dr. Raymond J. Powers, Ogden, had a narrow escape from death April 15, by accidentally taking a large amount of carbolic acid.——Dr. Daniel H. Calder has been reappointed medical superintendent of the State Mental Hospital, Provo.

VIRGINIA

Sanatorium Opened.—The Johnston-Willis Sanatorium, completed at a cost of $75,000, was opened for patients May 25. The hospital will accommodate 55 patients and will be under the charge of Drs. George B. Johnston and A. Murat Willis.

Commencements.—The seventy-first annual commencement exercises of the Medical College of Virginia, Richmond, were held May 19, and a class of 49 was graduated. Dr. Christopher Tompkins, dean of the faculty, delivered the faculty address, and the annual address was delivered by President Charles H. Denny, Washington and Lee University.——The annual commencement exercises of the University College of Medicine, Richmond, were held May 18, when a class of 41 was graduated. Joseph D. Eggleston, Jr., superintendent of public instruction, addressed the graduating class, and Dr. Stuart McGuire, president of the college, gave the faculty address.

Personal.—Dr. Stuart McGuire has been re-elected president of the board of trustees of the University College of Medicine, and Dr. John Dunn, secretary-treasurer.——Dr. Lewis C. Bosher has been re-elected president, and Dr. Charles R. Robins, secretary-treasurer of the Memorial Hospital Corporation, Richmond.——Robert F. Williams, superintendent of the State Sanatorium for Tuberculosis, has resigned.——Dr. S. H. Burton, Parnassus, has been elected district councilor. ——Dr. S. Harrison Smith, Alexandria, who is now in Panama, has accepted a position as physician to a railway company in Brazil.——Dr. William F. Creasy, Newport News, has succeeded Dr. William F. Cooper as state quarantine officer.

WASHINGTON

Personal.—Dr. William L. Hall has retired as president of the board of health of Spokane.——Dr. John H. O'Shea has succeeded Dr. Burchard H. Roark as physician in charge of the Spokane City Emergency Hospital.

New Medical Society.—A medical society has been organized, consisting of physicians of Green Lake, Fremont, Ballard and University district of Seattle, with Dr. Josiah L. Millett, Mountainview, as temporary president, and Dr. Harry C. Dyer, Green Lake, as temporary secretary.

State Board Appointed.—The governor has appointed the following as the State Board of Medical Examiners: Drs. Frank P. Witter, Spokane; Edward J. Taggert, Bremerton; A. Macrae Smith, Bellingham; Howard R. Keylor, Walla Walla; E. Weldon Young, Seattle, and George H. Dow, Chehalis.

Medical Department of Alaska-Yukon-Pacific Exposition.—Dr. Edmund M. Rininger, in charge of the medical department of the Alaska-Yukon-Pacific Exposition, Seattle, announces that a modern equipped emergency hospital has been installed, and that a room has been set aside for visiting physicians where they may receive their mail, write letters, etc. He invites physicians visiting the exposition to have their mail sent in care of the Emergency Hospital.

Unlicensed Doctors Immune.—Judge John B. Yakey, of the King County Superior Court, decided, on May 16, that curative theories of any character for the relief of human diseases may be put in practice in the state of Washington between that time and June 12, without requiring license from the State Medical Board. The decision was in the case of J. Meacham and Ronald Strath, charged with practicing medicine without license, and the court sustained the demurrer of the defendants, which resulted in the dismissal of the charge.

Hospital News.—Plans are being prepared for the additions to the new Fannie C. Paddock Memorial Hospital, Tacoma. The entire institution, when completed, will consist of nine buildings, and will have cost about $300,000.——By the will of the late Mrs. Henry Fuhrman, $10,000 is bequeathed to the Orthopedic Hospital, Seattle.——The new hospital for the Seattle Children's Home was formally opened May 4. The building has been erected at a cost of $7,500, and is designed as an isolation hospital for contagious diseases. There are six beds in the dormitory and two separate wards, besides a sun room, physician's room, etc.

CANADA

Hospital News.—A woman's hospital has recently been established in Toronto by the Salvation Army, and another is to be established in Montreal, of which Dr. A. Lorne Gilday will be superintendent.

Tuberculosis Institute.—The Tuberculosis Institute has recently been chartered at Montreal. Dr. W. H. Drummond is president of the organization and Drs. Thomas G. Roddick, E. Persillier La Chapelle, and J. George Adami are vice-presidents.

Personal.—Dr. Frederick P. Drake, London, has been selected to represent the Ontario Medical Association at the International Medical Congress, Bucharest.——Dr. Edward W. Archibald, Montreal, has started for Naples.——Drs. Walter W. Chipman and J. R. Goodall, Montreal, have returned from Europe.——Drs. John L. Day and Hyman Lightstone, Montreal, have gone abroad for study.——Dr. Alexander McPhedran has been elected president of the Toronto Academy of Medicine.

Antituberculosis Convention.—The ninth annual meeting of the Canadian Association for the Prevention of Tuberculosis was held in Hamilton, May 20, and the following physicians were elected officers: President, Dr. J. George Adami, Montreal; vice-presidents, Sir James A. Grant, M.D., Ottawa, and Drs. Louis Laberge, Montreal; Gordon Bell, Winnipeg; and J. A. Hutchinson, Montreal; and lecturer, Dr. George D. Porter, Toronto. The name of the association was changed from the Canadian Association for the Prevention of Tuberculosis and Other Forms of Tuberculosis to the Canadian Association for the Prevention of Tuberculosis.

GENERAL NEWS AND COMMENT

Jefferson Alumni Elect.—The fourth annual meeting and banquet of the New England Association of Jefferson Medical College graduates was held in Hartford May 26. The following officers were elected: President, Dr. Adam S. McKnight, Fall River, Mass.; vice-president, Dr. John T. Farrell, Providence, R. I.; secretary, Dr. Angus MacOdrum, Boston, and treasurer, Dr. Whitfield N. Thompson, Hartford.

Much Quinin Used.—During the calendar year of 1908 more than a ton and a quarter of quinin was used by the department of sanitation in the Canal Zone for the prevention of malaria by administrative prophylactic doses, to supply a tonic to the employés, and in the treatment of the 12,372 cases in the hospital, and the 23,000 cases in the sick camps. Quinin is dispensed free to any one who applies for it, whether he be an employé of the commission or not.

Pediatrists' Election.—At the annual meeting of the American Pediatric Association, held in Lenox May 25 and 26, the following officers were elected: President, Dr. David L. Edsall, Philadelphia; vice-presidents, Drs. D. J. Miller, Atlantic City, and Edward W. Saunders, St. Louis; secretary, Dr. Samuel S. Adams, Washington, D. C. (re-elected); treasurer, Dr. Charles H. Dunn, Boston, and recorder and editor, Dr. Linnaeus E. La Fetra, New York City. Washington was selected as the next place of meeting.

Tuberculosis Foes Elect.—At the annual meeting of the National Society for the Study and Prevention of Tuberculosis, held in Washington May 13-15, the following physicians were elected to office: President, Dr. Edward G. Janeway, New York; second vice president, Dr. Henry Sewell, Denver; secretary, Dr. Henry Barton Jacobs, Baltimore; treasurer, Dr. George M. Sternberg, Washington, D. C., and executive committee, Drs. William H. Baldwin, Washington; Herman N. Biggs, New York City; George M. Kober, Washington; John H. Lowman, Cleveland, Ohio, and Joseph P. Walsh, Philadelphia.

Health in the Canal Zone.—During March, there were 4 deaths among white employés in the Canal Zone, equivalent to an annual rate of 3.90 per 1,000. During the same month there were 32 deaths among the total force, equivalent to an annual rate of 8.76 per 1,000. Including the civil population of the zone, there were 72 deaths, equivalent to a death rate of 11.67 per 1,000, and taking the total population, there were 184 deaths or an annual mortality of 17.05 per 1,000. The constantly-sick rate of 20.60 per 1,000 is very small as compared with the statistics of similar bodies of men elsewhere.

Personal.—Dr. Walter B. Swift, Boston, was elected president of the Anglo-American Medical Association of Berlin, April 17, and has taken the apartment of the late president, Dr. Honan, at 78 Lutzowstrasse.——Dr. Raymond F. Bacon of the chemical division of the Bureau of Science, Manila, is spending five months in the United States.——Dr. Elijah J. Neathery, Sherman, Texas, has been made one of the vice-presidents of the 'Frisco System Medical Association.——Dr. A. E. Mayner, acting health officer at Panama, sailed for the United States May 4, and Dr. John G. Evans has been detailed as acting health officer during his absence.——Drs. John L. Phillips, Ancon; M. E. Connor, Cristobal, and F. R. Curney, Corozal, have been elected officers of the Canal Zone Branch of the American National Red Cross.

Mortality Statistics.—In the annual report of the census bureau covering 1907, it appears that during the registration area including 15 states and 76 large cities, there were 687,034 deaths, the death rate being 16.5 per 1,000 as compared with 16.1 per 1,000 for the year before. The highest death rate, 18.6 per 1,000, is reported from California, and New Orleans is said to have had the highest city death rate, 24 per 1,000, Denver coming next with 23.25 per 1,000, followed by Fall River, Mass., with 22.25, and Washington with 20.3 per 1,000. In every instance the cities had larger death rates than the country. Chief among death causes were penumonia, tuberculosis, heart disease, violence, intestinal diseases and kidney diseases in the order named. Marked increases were shown in deaths from influenza, pneumonia and heart disease. The deaths of children under five years of age made up 26.8 per cent. of the total, and 19.1 per cent. was made up of deaths of infants under one year of age.

National Purity Congress.—The fifth annual congress of the National Purity Federation will be held in Burlington, Iowa, October 18-22. The officers of the association are: President, B. S. Steadwell, Lacrosse, Wis.; vice-presidents, Dr. Howard A. Kelly, Baltimore, and Hon. Ben B. Lindsey, Denver; corresponding secretary, Miss Julia E. Morrow, 104 Ralph street, Spokane, Wash., and treasurer, Charles A. Mitchell, Cherokee, Okla. The object of the congress is to secure the cooperation of all societies, national, state and local, that are considering the promotion of purity in the life of the individual and in social relations, and inaugurating a forward movement to arouse the conscience of the people to organized vice and the operations of its promoters, and assure to all a high standard of morality and a right knowledge of the pure life. A general invitation is extended to all interested in the cause, and organizations are requested to send delegates to the congress.

Health of the Philippine Islands.—During the fourth quarter of 1908, the acting director of health in the Philippine Islands, reports that there were 7,330 cases of cholera in the provinces with 4,292 deaths, equivalent to a death rate of 58.55 per cent. These cases were from 29 provinces and 186 municipalities, the largest number of cases and the lowest death rate being in northern Visaya. Cholera became epidemic in Manila in September; the maximum number of cases was reached September 20, when sixty cases were reported. Twelve days later the daily number of cases was reduced to five, and the epidemic may then be said to have been eradicated. The cases that appeared in December were probably due to infection introduced from Rizal provinces. The principal factor in the difficulty encountered in the eradication was insanitary conditions, namely, lack of sufficient public closets, lack of sufficient public hydrants, lack of proper street drainage, and insanitary nipa shacks in the district. During the quarter 24 lepers were transferred from San Lazaro Hospital, 2 from Mindoro, 4 from Romblon, and 97 from Cebu to the Culion Leper Colony.

The Carroll Fund.—The following subscriptions have been received since the last report:

Medical Officers of the Army		$ 40.00
Sheridan Co. Medical Society, Sheridan, Wyo.		10.00
Denver County (Colo.) Medical Society		11.15
Dr. Marshal Fabyan, Boston		10.00
Dr. George H. Weaver, Secy. Chicago Pathological Society		2.00
Dr. C. H. Bunting, Madison, Wis.		5.00
Medical Society of the County of New York, Dr. Charles H. Richardson, Treas.		150.00
Dr. Wm. S. Halsted, Baltimore		10.00
Medical Society of the County of New York		38.00
Contributors:		
Dr. H. Seymour Houghton, Pres.	$ 5.00	
Dr. Gerhard H. Cocks	2.00	
Dr. F. Tilden Brown	5.00	
Dr. Walter Mendelson	10.00	
Dr. Frederic E. Beal	2.00	
Dr. M. C. O'Brien	2.00	
Dr. M. Mislig	2.00	
Dr. S. M. Landsman	1.00	
Dr. S. A. Knopf	5.00	
Anonymous	2.00	
Dr. H. E. Gardinor	1.00	
Dr. J. V. D. Young	1.00	
Dr. Harvey Cushing, Baltimore		10.00
Dr. St. Elmo Sanders, Kansas City, Mo.		5.00
Saunders County Medical Society, Ashland, Neb.		10.00
Dr. Guthrie McConnell, St. Louis		5.00
Dr. John Winters Brannan, New York		5.00
Dr. James E. Newcomb, New York		5.00
Dr. Henry G. Piffard, New York		5.00
Dr. W. Freudenthal, New York		2.00
Dr. Charles E. North, New York		1.00
Dr. Addison W. Baird, New York		1.00
		$ 330.00
Previously reported		$3,825.65
		$4,155.65

Twenty-one hundred and seventy dollars is still to be raised, of which nearly one thousand is in sight. Send all subscriptions to Major M. W. Ireland, Surgeon-General's Office, War Department, Washington, D. C.

FOREIGN

Typhus and Bad Economic Conditions in Russia.—A moving account of conditions in Russia is presented in a long letter from Moscow in the *Münchener med. Wochenschrift*, May 18, signed by Dr. A. Dworetzky. It states that the epidemic of typhus which has been raging in Russia during the last few months, and which has cost the lives of so many physicians and nurses, far surpasses the cholera epidemic both in its extent and intensity. The waves of the epidemic are growing constantly higher and spreading to new regions, as he shows by the official statistics from Astrachan, Odessa, Charkow, Kiev, and a dozen other widely scattered departments. Besides exanthematous typhus, relapsing fever and typhoid are making numerous victims. In Moscow alone there were 773 cases of typhus last November and December, January and February, and 1,223 of relapsing fever. In the Charkow district there were 1,880 cases of typhus during the last two months, with 3,150 cases of typhoid and 575 cases of relapsing fever. There are at present in the overcrowded Charkow hospitals 400 typhus or typhoid patients. All this epidemic of typhus and typhoid is unmistakably the result of conditions in the prisons, which even the authorities admit. In 1896 the prisons contained an average of 85,000 inmates, but ten years later, he says, "after the 'freedom' and 'constitution' manifestoes," the number of inmates jumped at once to 111,500; in 1907, it was 138,500; in 1908, 181,000, and the authorities estimate it at 200,000 at present. The appropriations for the current year for the salaries of officials and other expenses of the prisons are $15,300,000, half as much as is paid out for educational purposes. About three millions are for the pay-roll and 789 additional prison guards have been appointed this year. In contrast to these sums, the budget called for $3,570,000 for the support of the 200,000 prisoners, which averages less than $1.53 per capita a month. The report recently prepared by a committee of the Duma in regard to conditions in the prisons states that exanthematous typhus is prevailing at present in sixty-five different prisons and is spreading thence to the general populace. The government issued a decree April 15, forbidding the physicians connected with the prisons, under penalty of discharge, to say anything to outsiders in regard to the health conditions of the inmates of the prisons. He adds the figures in regard to the number of persons hung; it has increased from 10 in 1905 to 825 in 1908, according to official statistics; the daily papers give the figure of 1,831 for the last two years. Suicides are occurring in constantly increasing numbers, not only among those condemned to death, but also in the general populace, the number recorded by the daily papers in 1908 averaging 239 a month. In the current year there were 352 in January and 364 in February—the list including all ages, from children of 10 to the very old. In St. Petersburg alone there were 1,442 suicides last year. He mentions in conclusion a decree recently issued by the chief magistrate of Odessa forbidding the use of any anesthetic except chloroform or ether, owing to the recent death of a patient under ethyl chlorid.

Isolation of Lepers in Japan.—The Japanese government has roused to the necessity of caring for the numerous lepers, and

our exchanges state that five leper colonies are to be organized and several thousand lepers in advanced stages of the disease are to be segregated. A leper hospital is to be provided at Osaka and a leper colony with asylum on the island of Kiu Siu.

Fine for False Medical Certificate.—A Berlin court recently imposed the mildest penalty, one month's imprisonment, on a physician who certified that an employée in a government office had influenza and was too sick to return to work for a week, when the truth was that the girl had just been delivered of a child. He claimed in his defense that the girl was actually too ill to return to work, and that he merely misstated the cause of her illness, which defrauded no one. The letter of the law, however, had to be upheld, and the mildest penalty was imposed, the judge expressing regret that he was unable to make it still lighter.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, May 22, 1909.

Friendly Societies and the Income Limit in Australia

A chronic struggle has gone on for some years between the medical profession in England and the "friendly societies" on the question of an income limit. For the small sum of about $1 per annum a member of a "friendly society" is insured against the cost of medical attendance and medicine. The societies consist principally of workingmen who would under ordinary circumstances be unable to pay for anything like a prolonged medical attendance. Physicians who have not a wealthy *clientèle*, i. e., the majority of the profession, willingly undertake attendance on these terms which are not unremunerative compared with other poor-class practice, especially in the large towns where the working class much resort to hospitals in cases of serious illness and accidents. But sometimes friendly societies have a few wealthy members with annual incomes as high as $5,000 or more who, under present conditions, are entitled to attendance for the small insurance. The profession has always resented having to attend them, but is powerless to refuse. An income limit above which a member would be unable to secure attendance on the club terms has been long suggested and is advocated by the British Medical Association and other medical societies, but the friendly societies have always preserved an obstinate resistance and regarded the suggestion as an unwarrantable interference with their management. They adopt the position that the physician must carry out his contract and that if he objects to the terms he can resign and that they will have no difficulty in finding a successor. At the antipodes the same struggle exists and the problem is even more serious, for there the friendly societies contain a large number of wealthy men. The British Medical Association of New South Wales has put forward the claim that in future the medical officers of friendly societies should not be compelled to attend members whose income exceeds a certain sum which has been decided as a fair one. The restriction is not to apply to the present members of the lodges, but only to those who may join in future. But the societies show no signs of yielding.

The Metropolitan Provident Medical Association

This association for many years has done good work by arranging for the medical attendance of members of the working class on a provident system. On payment of a subscription of about $1 per annum a man or woman is entitled to medical attendance and the necessary medicine. In the case of a family a reduction is made in this rate. There are now 20 branches—16 dispensaries and 4 medical clubs, with a membership roll of 12,040. The association is almost self-supporting, receiving only a small grant from the Hospital Saturday Fund. The extension and development of the provident system appears to be the only barrier against the indiscriminate free treatment of the working class. It is thought desirable to make some modification of the present rules to meet the need which has been shown to exist for medical treatment among the 750,000 children of the school age in London. If this is not done school clinics under the management of the educational authorities will sooner or later be established. This prospect is viewed with great misgiving, and it is felt that the association should make every effort to prevent further relaxation of the sense of parental responsibility with its consequent effect on character. But the strong tendency to socialistic legislation which now exists is more likely to injure than to be stemmed by the provident system.

Total Abstinence and Longevity

The United Kingdom Temperance and General Provident Institution, an insurance company, has two departments—one for total abstainers and one for users of liquors. As the statistics of these departments are kept separately they afford a useful means of comparing the mortality of total abstainers with that of the general population. The report for the year 1908 shows that in the temperance section 457 claims were expected according to the ordinary life tables, but only 274 were made; whereas, in the general section 461 claims were expected and 407 were made. Thus the proportion of actual to expected claims in the former was only 46 per cent. as compared with 64 per cent. in the latter. The large sum of $250,000 was thus saved in the temperance section and goes to swell the bonuses of the corresponding policy holders. Though both classes of lives showed good results there was a marked advantage in the case of total abstainers. These results are open to one criticism: Decisive as they are in showing the superior longevity of total abstainers, they are not decisive in proving the superiority of total abstinence; for those who adopt total abstinence are always prudent persons who regulate their lives in other ways much more carefully than the general population.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, May 20, 1909.

The Treatment of Ophthalmia Neonatorum

Professor Motais, of Angers, has just made, at a session of the Academy of Medicine, an interesting communication on the treatment of ophthalmia of the newborn. In place of silver nitrate, which must be used in elevated doses and is not without danger, Motais makes use of protargol, which he prescribes in the following fashion: After a simple washing with the eyelids widely opened, with a tampon of absorbent cotton moistened with a solution of potassium permanganate, 2 drops of collyrium of protargol, 1 to 5, are instilled into each eye. This instillation is repeated every three hours, night and day, until the secretion becomes scanty and less thick. The instillations are then made every six hours; and at the end of 5 or 6 days, when the secretion has become very weak and the swelling of the eyelids no longer exists, the collyrium of 1 to 5 is replaced by one of 1 to 10. If the cornea is ulcerated before the treatment the protargol immediately checks the destructive process and institutes from the next day on, cicatrization of the ulcer.

The academy has authorized the midwives themselves to make use of Credé's method, and to give an instillation of 2 per cent. silver nitrate solution to the newborn at the moment of birth. In point of fact, they have this solution at their disposition, and it is to be feared that they do not resist the temptation to continue the treatment themselves should ophthalmia declare itself. Therefore, Motais thinks, with some justice, that it would be prudent to leave in their hands only a solution of protargol, 1 to 5, which is innocuous while being perfectly active.

The Chair of Anthropology at the Museum

Dr. Verneau, assistant professor of anthropology at the Museum of Natural History, has been appointed professor of this chair in succession to Professor Hamy, deceased.

Death of Ernest Besnier

Dermatology has just lost one of its most illustrious representatives in France, Dr. Ernest Besnier. Born at Honfleur, April 21, 1831, hospital interne in 1853, doctor in 1857, he won at the *concours* in 1863 the position of physician of the hospitals. For ten years he devoted himself to study of general medicine and of hygiene. It was at this period that he published in Dechambre's *Dictionnaire encyclopédique des sciences médicales* a series of very remarkable articles. At the same time he laid before the *Société médicale des hôpitaux*, whose general secretary he was for a long time, annual reports of epidemics. As a hygienist, he wrote on the laws which govern epidemics; on glassmakers' syphilis; on the adulteration of foodstuffs, and on parasitic affections and their treatment—works which in 1880 gained him a membership in the Academy of Medicine. Ernest Besnier became physician of St. Louis Hospital in 1872, and thenceforward devoted himself entirely to the study of dermatology. He published many original papers in the *Annales de dermatologie et de syphiligraphie*, which he founded with his friend, Dr. Doyon. In collaboration with the latter, he published in 1881 the French edition of Kaposi's "Lessons on the Maladies of the Skin," enriched by numerous remarkably precise notes.

His talent and his vast erudition marked Besnier out for a chair in the College of Medicine, to which he was nominated; but an unforeseen ministerial change allowed politics to deprive the Paris College of Medicine of an eminent master. Dr. Besnier did not protest, but continued for years to give instruction at the St. Louis Hospital. Of irreproachable scientific and professional probity, Ernest Besnier remains a model of the physician faithful to his duty.

Election of Professor Brissaud to the Academy of Medicine

During its last session the Academy of Medicine elected an honorary member in the section of medical pathology to replace Professor Joffroy, who died last November. Dr. Brissaud, professor of internal pathology at the College of Medicine and physician at the Hôtel-Dieu, was elected by 54 votes against 5 for Dr. Babinski and 1 for Dr. Gilbert Ballet.

A Monument to Michael Servetus

In 1906 a committee was formed, consisting of Professor Osler, Lombroso, Brouardel, Brissaud, Dejerine, Charles Richet and others, to erect at Vienne, in the department of the Isère, August 14 next, a monument to Michael Servetus, who was a precursor of Harvey, through his description of the circulation of the blood in his book "Christianismi Restitutio," published in 1853. Professors Lortet, Mairet and Charles Richet, for the committee, whose headquarters is at the city hall of Vienne, Isère, issue a final appeal to the public.

The International Tuberculosis Society

In May, 1910, this society, under the presidency of Dr. Lancereaux, will distribute to the authors who submit the best works on tuberculosis the following prizes: (1) one of $60; (2) one of $20; (3) two of $10 each; (4) two gold medals with a diploma of honor; (5) three silver medals with diploma of honor. Authors who wish to enter this contest should send their essays under sealed cover before Jan. 1, 1910, to Dr. George Petit, secretary-general of the International Tuberculosis Society, rue du Rocher, No. 51, Paris.

Inauguration of the Bligny Sanatorium

The bureau of popular sanatoriums of Paris, on the 9th of May, inaugurated at Bligny, near Versailles, its new institution for tuberculous women and young girls. A men's sanatorium, having 124 beds, has been in operation there since 1903. The sanatorium just inaugurated has 120 beds, giving a total of 244. Unlike Germany, where the organization of sanatoriums has developed remarkably, France possesses only 12 sanatoriums for tuberculous adults with a total of 860 beds. All these institutions are due to private initiative, with the exception of the sanatorium at Angicourt (148 beds), belonging to the *Assistance publique*.

Death of Dr. Dujardin-Beaumetz

Dr. Dujardin-Beaumetz, former medical inspector general of the army, died at Montpellier, where his military career began. As a *médecin-major* in 1870, he was taken prisoner at Sedan. On his release he immediately took service in the army of the Loire. In 1885 he directed at Tonkin the sanitary service of the expeditionary corps. On his return from Tonkin, Dujardin-Beaumetz was called to the post of director of the sanitary service at the ministry of war, which he occupied from 1887 to 1895. He rendered important services, notably in the judicious measures prescribed by him in the fight against typhoid fever in the army.

Dr. Maurice de Fleury Elected to the Academy of Medicine

At its last session, the Academy of Medicine proceeded to elect an associate member in succession to Dr. Hamy, deceased. On the first ballot Dr. Maurice de Fleury, author of many works on neuropathology and psychology ("Introduction à la médecine de l'esprit," "Le Corps et l'Ame de l'enfant," "L'Ame du criminel," etc.), was declared elected by 51 votes, against 21 for Dr. Voisin, 9 for Dr. Castex, 6 for Dr. Capitan and 2 for Dr. Valude.

BERLIN LETTER

(From Our Regular Correspondent)

Berlin, May 14, 1909.

Cultivation of Spirochæta Pallida

Although the etiologic significance of *Spirochæta pallida* for syphilis is recognized at the present by the great majority of dermatologists and bacteriologists, there is still lacking the final proof, namely, the cultivation of the disease producers and the production of the disease by infection with the cultivated germ as proof of the etiologic relation of the pathogenic bacterium as it was furnished for the tubercle bacillus in a classical way for the first time by Robert Koch in 1882. Repeated attempts to cultivate the spirochete have been made since the discovery by Schaudinn in 1905, but so far without success. In the last number of the *Deutsche medizinische Wochenschrift*, a young bacteriologist, Dr. Schereschewsky, reports an apparently successful result of cultivation. He succeeded in securing a growth of the spirochete at 37 degrees C. in from three to five days on horse serum which had been brought to gelatinous consistency and subjected to a partial autolysis, by standing about three days in a thermostat at 37 degrees C. By dark-field illumination, as in stained preparations, the author could establish the identity of the spirochete forms grown by him (and which are figured in the article) with the *Spirochæta pallida*. To be sure, he has not succeeded so far in obtaining a pure culture of the spirochetes, but he could determine that they were motile even on a solid medium. Schereschewsky will continue his investigations at Neisser's clinic and will next undertake injections in apes.

The Tipping Business

In regard to this notorious affair, I am able to report a satisfactory outcome in one respect. May 10 a private damage suit by Professor Senator against the editor of a Berlin sensational paper, on account of an article published therein, was tried, and as a result of the expert opinions of Professors His and Goldscheider, an agreement was reached by which the accused editor admitted that he was convinced that the small and occasional sums paid by Professor Senator had not the character of tainted money or of commissions. The accused further assumed the costs of the proceeding. It is to be expected that a similar result will be reached in the remaining proceedings, this affair of Senator's, namely, the trial before the court of honor and the university authorities, which have been inaugurated at the request of the professor himself with the consent of the minister of education, and that Senator at least will come out of the whole affair exonerated, although it must be admitted that he has been somewhat incautious. Whether the other specialists will be able to justify themselves to an equal extent remains to be seen.

A Prussian Professional Ordinance for Medical Men

It is of special interest in connection with the foregoing, that the executive committee of the Prussian medical councils has just published an ordinance for regulating the professional relations of Prussian physicians, which is to be submitted to all the Prussian medical councils for discussion and determination. In a number of the German states there have been for some time ordinances of this sort. The Prussian medical councils have also for the most part adopted such regulations for the physicians of their own district. While there are no essential differences between these codes, there are some inequalities, and from a practical standpoint it is very desirable that a uniform code should be adopted for the entire profession of Prussia, so that what is regarded as permissible in one district should not be condemned in another, and *vice versa*. It would take too much space to give the entire proposed code, but I will mention the principal points which I assume will be of particular interest to American physicians, as it is well known that strict ethical principles are observed in their professional intercourse. Public advertisement and even private offer of medical services are forbidden. In this are included signs of private dispensaries, as well as those indicating hours for free treatment, the recommendation of private methods in the public papers, reports of cases in lay periodicals and the publication of testimonials. However, the beginning, interruption and resumption of practice, change of residence, etc., may be publicly announced for a few times. The owners of sanatoria and similar institutions may be permitted frequent notices in the newspapers by the executive committee of the medical councils. In addition, the buying and sale of medical practices, as well as the agency for such transactions, are forbidden; likewise, the treatment of patients exclusively by mail; also giving testimonials for secret remedies or for medicines in general for the purpose of commercial advertisement. Also the physician is not permitted to treat patients in conjunction with laymen. Offering or assuring advantage of any sort to a third person, as a midwife, porter, etc., in order to secure practice is not permissible. It is allowable to remit the fee in whole or in part to patients without means, but not to

those who are able to pay. The title of specialist is allowed only to a physician who has secured a thorough education in his specialty and who devotes himself particularly to it. Unfavorable criticism of a physician before the public is forbidden. Patients who are receiving medical treatment at their home may have the advice of other physicians only in case of imminent danger, and in that case the physician who was treating the patient at first must be notified in due time. Patients who are received by a locum tenens must be transferred to the principal on his resumption of practice. Written contracts or oral arrangements of any sort with private or public corporations must be submitted to an appropriate committee of the medical council for their sanction before they are finally signed, renewed or extended. This code will be discussed by the medical councils at their next sessions; without doubt criticism will be offered in most cases as to one or other of the conditions, as each council is sovereign in this respect. Time will tell whether the executive committee will succeed in harmonizing the various wishes of the councils so as to secure a single code agreeable to all of the councils.

Pharmacology

GLYCOZONE

Report of the Council on Pharmacy and Chemistry, with Comments

A number of specimens of Glycozone purchased in the open market were examined by a sub-committee. The product was found to be a mixture of approximately 90 per cent. glycerin, 5 per cent. glyceric acid, a small amount of water and traces of undetermined matter. The absence of hydrogen peroxid or other peroxids was demonstrated.

In its report the sub-committee held that: (1) The name of the product is objectionable and misleading; (2) the statements made in regard to its composition also are misleading; (3) the claims for its therapeutic value are exaggerated and untrue. Since the objectionable statements have been given wide publicity among physicians as well as among the laity, the sub-committee recommended that attention should be called to the matter in THE JOURNAL.

The report of the sub-committee was adopted by the Council.

W. A. PUCKNER, Secretary.

COMMENT:—While the name gives the impression that ozone or some similar substance is an essential constituent of Glycozone, or else that the preparation is a compound or derivative of ozone, and while the earlier advertisements stated that Glycozone was "glycerin combined with ozone," the examination made by the Council shows that there is no basis of fact for such inferences.

In the advertisements the "chemical formula" $C_3H_6O_4 + C_3H_6O_3$ appears under the word Glycozone. From the Council's report it is apparent that $C_3H_6O_4$ stands for glyceric acid and the $C_3H_6O_3$ for glycerin, and, therefore, indicate the chief constituents of Glycozone. Few, doubtless, would recognize the first formula as being that of glyceric acid, a product practically unknown in medicine, nor would many associate glycerin with the second. The evident intent is that physicians should accept the formula as a badge of respectability.

According to the label on a trade package, Glycozone is "prepared only by Charles Marchand, chemist," and is "an absolute cure for dyspepsia, catarrh of the stomach, ulcer of the stomach, heart-burn," etc. The label further reads: "This remedy is positively harmless. By destroying the microbian element in the stomach it prevents the fermentation of food and stimulates digestion." An examination of medical literature fails to reveal any basis for these claims. While glycerin possesses some antiseptic properties, it is evident that the glycerin which constitutes 90 per cent. of this remedy is not the agent that gives the glycozone such phenomenal virtues. General literature contains nothing that would indicate that glyceric acid in any quantity, with or without glycerin, possesses these miraculous properties. If by "microbian element" is meant microbic organisms, the statement is without foundation. There is nothing in this product which possesses these bactericidal powers.

The circular which accompanied a trade package, envelopes the preparation in an air of mystery. Derivation from, or close relation to, ozone and hydrogen peroxid is vaguely hinted at, without definite assertion. Thus, the chief therapeutic properties of glycozone and hydrozone are compared as follows:

"Hydrozone instantly destroys the microbian element, leaving the tissues beneath in a healthy condition."

"Glycozone acts more slowly, but not less certain as a stimulant to healthy granulations."

There is no similarity between the action of hydrozone, which is a hydrogen peroxid preparation, and glycozone, which consists of a mixture of glycerin and glyceric acid. The representation is false and misleading. The following statement, also, is an unwarranted exaggeration of the facts:

"As an internal medication in fermentation of food, catarrhal and inflammatory conditions of the stomach, and intestinal disorders, its action is prompt and effective, giving immediate relief to the patient."

The following is another illustration of the vague statements made: After asserting that glycozone is hygroscopic and that it will deteriorate by absorption of water unless securely corked, it is stated that "Its healing properties increase with age." Whatever mysterious ingredient there may be present in this mixture to justify the statement that the healing properties increase with age can only be conjectured. To humbug the patient further he is advised to use only a "silver, glass or hard rubber spoon."

MIGRAININ

Report of the Council on Pharmacy and Chemistry Rescinding Acceptance of the Preparation

The Council having voted to rescind the acceptance of Migrainin and to omit it from New and Nonofficial Remedies (Appendix), directed publication of the report given below.

W. A. PUCKNER, Secretary.

SUPPLEMENTAL REPORT ON MIGRAININ

To the Council:—Koechl & Co., American agents for Migrainin (Meister Lucius & Bruning) asserted that this preparation was a mixture of antipyrin 85 parts, caffein 9 parts and citric acid 6 parts. The experiments of F. Zernik (*Apoth.-Ztg.*, 1906, p. 686), however, showed that Migrainin consisted of antipyrin 90.88 parts, caffein 8.4 parts and citric acid 0.45 parts. When the attention of Koechl & Co. was called to this they informed the Council, on June 20, 1907, that the formula they gave was given them direct by the manufacturers abroad and that they, Koechl & Co., did not question its accuracy. They, however, offered to "write abroad and have the manufacturers confirm the formula as given." On July 23, 1907, Koechl & Co. wrote the secretary of the Council that the manufacturers had informed them that Migrainin contains 90 per cent. antipyrin and 9.1 per cent. caffein citrate. This being an acknowledgment that the former statement submitted was incorrect, the Council voted that the approval of Migrainin should be reconsidered. Examination of the product, therefore, was taken up in the Association's laboratory and an original specimen, purchased in Chicago, was found to contain moisture 0.7 per cent., antipyrin 90.93 per cent., and instead of caffein citrate 9.1 per cent., citric acid 0.51 per cent., caffein 8.53 per cent. This analysis agreed essentially with the composition of Migrainin as found by Zernik.

1. Caffein citrate is readily hydrolyzed by water, but in the dry form the existence of three caffein citrates is possible as follows:

(1). $C_8H_{10}N_4O_2.C_6H_8O_7$ contains 50.28 per cent. caffein.
(2). $(C_8H_{10}N_4O_2)_2C_6H_8O_7$ contains 66.91 per cent. caffein.
(3). $(C_8H_{10}N_4O_2)_3C_6H_8O_7$ contains 75.18 per cent. caffein.

If the "caffein citrate" in Migrainin is present as in (1) there should, according to the statement of the manufacturer, be present 4.57 per cent. caffein; if as in (2), 6.08 per cent. caffein; if as in (3), 6.84 per cent. caffein: the quantity found is 8.53 per cent. If the caffein citrate is present as in (1), the citric acid present should be 4.53 per cent.; if as in (2), 3.02 per cent., and if as in (3), 2.26 per cent.: the citric acid found equals 0.51 per cent. This shows that the most recent statement of the firm, viz., that Migrainin contains 9.1 per cent. caffein citrate, is incorrect, no matter what interpretation is given to the meaning of the term caffein citrate.

While the discrepancies between the statement of the firm and the facts are perhaps not great, nevertheless they show that even the formula last given is incorrect, and that the statements of Koechl & Co., while no doubt made in good faith, were in this instance unreliable.

In recent advertising matter issued by Koechl & Co., "phenozon-caffein citrate" is given as a synonym for Migrainin, one circular stating that "Migrainin is phenozon-caffein citrate," etc. In the same circular the following also appears: "In the treatment of migraine with phenacetin or antipyrin, the attack is delayed, while with Migrainin it is usually permanently stayed." This will, no doubt, lead physicians to infer that Migrainin is not a mixture of antipyrin and caffein citrate, but that it is some new compound. While the firm disclaims any intention to mislead, it does not offer to withdraw or modify this circular. It is recommended, therefore, that the approval of Migrainin be rescinded and that it be omitted from New and Nonofficial Remedies.

SALIT

Report of the Council on Pharmacy and Chemistry Rescinding Acceptance of the Preparation

The Council was advised that Salit (Heyden Chemical Works), a preparation which previously had been approved, was being advertised to the public in Germany, and that it therefore should be classed with "patent medicines" intended for popular use. The following report was presented by a subcommittee:

SUPPLEMENTAL REPORT ON SALIT

To the Council:—The secretary reported to the Council that Salit is advertised to the laity abroad, but that the manufacturer had agreed that these advertisements should not appear in those foreign papers which are shipped to this country. The Council decided that in accordance with precedent the advertising of products in foreign lay journals should be held a conflict with the rules, and it voted that the acceptance of Salit be reconsidered. It is now recommended that Salit be refused recognition, and that it be omitted from New and Nonofficial Remedies.

The report was adopted by the Council and its publication directed. W. A. PUCKNER, Secretary.

Association News

THE ATLANTIC CITY SESSION

Final Announcements for the Session to be Held Next Week

As this issue of THE JOURNAL reaches its readers, members of the Association are preparing to start for Atlantic City or are already on their way, while the Atlantic City profession is resting from its labors of preparation in anticipation of a most successful meeting.

The House of Delegates will be the first body to convene, and it will attempt to complete a considerable amount of work on Monday. It meets in the solarium of the Hotel Traymore. Its first session is at 10 a. m., June 7, and there will be presented the reports of the various officers and of the standing and the special committees.

The first and only General Session will be the Opening Meeting to be held in the Auditorium on Young's New Pier at Arkansas Avenue and the Boardwalk, Tuesday, June 8, at 10:30 a. m. At this meeting, after the addresses of welcome and reports of the committees of arrangements, the president-elect, Dr. W. C. Gorgas, Chief Sanitary Officer of the Isthmian Canal Commission, Ancon, Panama, will be installed into office and will deliver his address.

Tuesday afternoon the various sections will take up their work at 2 o'clock. The preliminary programs of these sections were printed in THE JOURNAL May 1. Each member is given, on registration, a copy of the official program, which details the proceedings at these section meetings, and gives abstracts of the papers so that all may know the scope of the articles to be read.

The Daily Bulletin

The A. M. A. *Daily Bulletin* will be issued on Tuesday, Wednesday and Thursday mornings with a list of names of those registered on the preceding day, and also with announcements of the events on the day of issue.

Mail Matter for Those in Attendance

Members should have their mail addressed to them in Atlantic City in care of the hotel in which they will stop. Those who neglected to secure hotel accommodations in advance may have mail addressed to them in care of the American Medical Association, Young's Old Pier, Atlantic City, N. J. A branch postoffice will be in operation adjoining the Bureau of Registration and the Scientific Exhibit and the Commercial Exhibit. There will also be telegraph and telephone booths, and a well-prepared Bureau of Information, whose attendants will be ready to answer questions on all points of interest.

Program of Entertainments

[The official members' badge, or one of those provided for ladies and guests, will be required for admission.]

TUESDAY, JUNE 8

4 to 5:30 p. m.—An informal tea will be given at the Chalfonte Hotel to the visiting ladies of the American Medical Association by the ladies' committee of Atlantic City.

7:30 p. m.—The Section on Nervous and Mental Diseases will give a dinner at the Hotel Marlboro. Members desiring to attend this dinner are requested to notify the chairman of the section at the Hotel Marlboro on Tuesday at noon.

7:30 p. m.—Harvard University alumni meeting and dinner at Hotel Windsor.

8 p. m.—Vanderbilt University Medical Department alumni banquet at Young's Hotel.

8:30 p. m.—Medico-Chirurgical College (Philadelphia) alumni reunion and smoker at Hotel Rudolf.

8:30 p. m.—The Section on Laryngology and Otology will hold an informal sea-food banquet, with vaudeville, at Hotel Rudolf. Price per cover, $4.50. Those desiring to attend this dinner should notify the secretary of the section in ample time.

9 p. m.—Dartmouth Medical College alumni reunion at Hotel Chelsea.

9 p. m.—Jefferson Medical College alumni reunion and smoker at Hotel Royal Palace.

Alumni reunions for the medical departments of the University of Vermont and the University of Minnesota and for the Long Island Medical College and Tufts' Medical School to be announced later.

WEDNESDAY, JUNE 9

12 noon.—For visiting ladies: Exhibition of rescue by the Atlantic City Life Guards, directed by Beach Surgeon Dr. J. T. Beckwith, on beach opposite Tennessee avenue.

2:30 to 5:30 p. m.—Sailing parties for ladies will leave Ventnor Boat Club House at short intervals.

6:30 p. m.—"Wiener Studenten" will hold a reunion, supper and smoker at Old Vienna. Those intending to be present, address Dr. William N. Senn, Marlborough-Blenheim Hotel.

8:30 to 10 p. m.—Reception to the President, Dr. William C. Gorgas at Music Hall, Steel Pier.

10 to 12 p. m.—Dancing at Music Hall, Steel Pier.

THURSDAY, JUNE 10

11:30 a. m.—Public exhibition, hauling of seine (courtesy of Mr. John L. Young) at Young's Million Dollar Pier.

12 noon.—Alpha Omega Alpha Medical Scholarship Society members will meet for lunch; place to be announced later in the Bulletin.

4 to 6 p. m.—Ladies' reception at Plaza, Marlborough-Blenheim.

8:30 to 10:30 p. m.—Musicale at Marine Hall, Steel Pier.

8:30 to 10:30 p. m.—Musicale (Metropolitan Orchestra, with soloists), at Music Hall.

10:30 to 12 p. m.—Vaudeville and smoker for ladies and gentlemen at Islesworth Café, Virginia Avenue and Boardwalk.

10:30 to 12 p. m.—Vaudeville and smoker for ladies and gentlemen at New Berkeley Café, Kentucky Avenue and Boardwalk.

The Country Club House at Northfield will be open to the physicians and ladies during the entire meeting.

The Atlantic City Yacht Club extends the courtesy of its club house during the entire meeting.

The Meeting Places

The following are the meeting places announced by the Atlantic City Committee on Arrangements. It is to be noticed

that the Section on Practice of Medicine is to meet in Marine Hall, Steel Pier, in place of Casino Hall, Steel Pier, as first announced.

HOUSE OF DELEGATES—Traymore Solarium.
BOARD OF TRUSTEES—Marlborough-Blenheim (Committee Room).
JUDICIAL COUNCIL—Marlborough-Blenheim
REGISTRATION—Young's Old Pier.
POSTOFFICE, TELEGRAPH, TELEPHONE AND BUREAU OF INFORMATION—Young's Old Pier.
COMMERCIAL AND SCIENTIFIC EXHIBIT—Young's Old Pier..

SECTIONS

PRACTICE OF MEDICINE—Marine Hall, Steel Pier.
SURGERY AND ANATOMY—Ocean Hall, Steel Pier.
OBSTETRICS AND DISEASES OF WOMEN—Casino Hall, Steel Pier.
DISEASES OF CHILDREN—First Presbyterian Church, Pacific and Pennsylvania Avenues
NERVOUS AND MENTAL DISEASES—Brighton Casino
PHARMACOLOGY AND THERAPEUTICS—Jewish Synagogue, Pacific and Pennsylvania Avenues.
HYGIENE AND SANITARY SCIENCE—Baptist Church, Pacific Avenue, near Pennsylvania Avenue
PATHOLOGY AND PHYSIOLOGY—Central M. E. Church, 1213 Pacific Avenue
OPHTHALMOLOGY—Parochial Hall No. 1, Top Floor, Tennessee and Pacific Avenues
LARYNGOLOGY AND OTOLOGY—Parochial Hall No. 2, Second Floor, Tennessee and Pacific Avenues
CUTANEOUS MEDICINE AND SURGERY—Olivet Church, Tennessee and Pacific Avenues
STOMATOLOGY—Olivet Church Sunday School Rooms, Tennessee and Pacific Avenues.

Clinics in Philadelphia

The following clinics in Philadelphia for visiting physicians are announced in addition to those detailed in THE JOURNAL, May 22, page 1682:

METHODIST HOSPITAL, BROAD AND WOLF STREETS

Friday, June 11

10:00 a. m.—Dr. J. Torrence Rugh. Excision of Knee.
2:30 p. m.—Dr. Walter Roberts. Adenoids and Tonsils.
3:00 p. m.—Dr. Philip H. Moore. Foreign Bodies in the Eye.

Saturday, June 12

10:00 a. m.—Dr. James Hendrie Lloyd. Demonstration and Lecture on Nervous Diseases.
11:00 a. m.—Dr. Alfred Hand. Ward Walk.
11:00 a. m.—Dr. Harlan Shoemaker. Surgical Pathology of Uterine Cancer.
1:00 p. m.—Dr. Levi J. Hammond. Operative Surgery of Gall Bladder.

AMERICAN ONCOLOGIC HOSPITAL, 45TH AND CHESTNUT STS.

Daily

2:00 p. m.—Cases Treated by Ionic or Cataphoric Surgery by Dr. G. Betton Massey.
3:00 p. m.—Surgical Cases by Dr. Addinell Hewson and Dr. Samuel McClary.
4:00 p. m.—Cases Treated by X-Rays and Radium by Dr. William S. Newcomet.
4:00 p. m.—Medical and Pathologic Demonstrations by Drs. Charles A. L. Codman, John M. Swan and C. B. Longenecker.

Correspondence

A Home for Aged and Disabled Physicians

To the Editor:—In connection with the home for old and disabled physicians suggested by Dr. Magruder (THE JOURNAL, May 22, 1909, p. 1682) let me say that at one of our Christian County Medical Society meetings in 1908 the proposition to build such a home in Kentucky was made and the secretary of this society was requested to communicate with every other society in the state and to put the matter before them. This was done and a resolution to that effect was also passed at our state meeting at Winchester in October last. A committee (of which I am chairman) was appointed to investigate the matter and to report to our state meeting in 1909.

We now have in the hands of every county secretary in this state subscription lists, with letters and subscription blanks, soliciting initial subscriptions of $10, and $5 annually. These are to be collected by me and made the basis of my report to the Kentucky State Medical Society in October.

If we could make this a national home instead of a state affair I believe it would be better. From present indications I believe the Kentucky physicians are going to build their home. I agree with Dr. Magruder that "the matter of planning the institution on such broad lines that provision might be made for the care of the families of those who seek its shelter is one that should be given the most careful attention."

J. PAUL KEITH, M.D.
Secretary Christian County Medical Society, Hopkinsville, Ky.

The Philadelphia Branch of the American Pharmaceutical Association

To the Editor:—In connection with its exhibition of drugs and pharmaceutical processes at the meeting of the American Medical Association, in Atlantic City, the Philadelphia Branch of the American Pharmaceutical Association will hold a scientific meeting for the purpose of presenting and discussing papers on topics relating to the U. S. Pharmacopeia, National Formulary and New and Nonofficial Remedies. The meeting will be held on Friday morning, June 11, and will be in charge of the officers of the Philadelphia Branch. The following is a partial list of the papers that will be presented:

"U. S. Pharmacopeia and National Formulary Preparations versus Nostrums," by Mr. Otto Raubenheimer, Brooklyn.

"The Relation of New and Nonofficial Remedies to the U. S. Pharmacopeia," by Mr. M. I. Wilbert, Washington, D. C.

"Improvements in the National Formulary," by Mr. George M. Beringer, Camden, N. J.

"The Tests of the U. S. Pharmacopeia," by Prof. I. V. S. Stanislaus, Philadelphia.

Other papers, the titles of which have not yet been announced, but which are related to the foregoing topics, will be presented by Prof. Joseph P. Remington of Philadelphia and Prof. H. P. Hynson of Baltimore. The various papers will be discussed by prominent pharmacists and physicians. Invitations to attend this meeting are extended to all who are interested in improving the standard formulas for medicinal preparations.

AMBROSE HUNSBERGER, Secretary, Philadelphia.

The Danger of Heavy Nitrogenous Diet in Tuberculosis

To the Editor:—I wish to call the attention of the profession to the grave danger of a too heavy nitrogenous diet in tuberculosis. My attention has recently been called to several cases of albuminuria and nephritis with tuberculosis, coming on after the patient had been on a diet consisting of eggs and milk in large quantities. A patient may believe that he is doing the right thing in consuming a dozen or more eggs per day when insidiously there develops a pronounced albuminuria and perhaps along with this a tuberculous kidney infection. When the kidney elimination is impaired such patients fail very rapidly and frequently this disturbance of the kidney function seems to be the beginning of the end.

F. J. WALTER, Roswell, N. Mex.

The Combined Course

To the Editor:—I much regret that in my paper on "The Combined Course Leading to the Degrees of A.B. or B.S. and M.D.," in THE JOURNAL, May 22, the quotation marks were omitted by the compositor from the quotations inserted. It is not fair to an author to quote separate paragraphs from a number of separate articles so as to make it appear that they constitute a continuous statement. In my paper each paragraph quoted should have been indicated as a separate quotation.

JOHN M. DODSON, Chicago.

Hat-Pin in the Male Urethra

To the Editor:—I wish to report a case similar to the case of Dr. Hazzard (THE JOURNAL, May 29, p. 1759). A man 60 years old, was referred by Dr. Louis Burckhart of this city. He had a 6 inch plain headed hat-pin engaged in the urethra, which had been introduced in an effort at masturbation. It was removed exactly as in Dr. Hazzard's case; the point having almost entirely penetrated the penile body, the puncture was completed, the pin drawn through, and the direction reversed to push the head forward and out at the meatus.

FREDERICK R. CHARLTON, Indianapolis.

Book Notices

Dante: Physician. By A. G. Drury, M.D., Cincinnati, Professor of Hygiene in the Medical College of Ohio. Cloth. Pp. 89. Price, 50 cts. Cincinnati: The Lancet-Clinic Press, 1908.

This little book is one of the latest, as it is one of the most analytically just appreciations of the great Florentine poet, and shows a wide range of research, not only into the literature, but into the history of the Dante epoch. The net result is to establish the fact that Dante was not only a politician, a poet and a learned theologian, but a physician who was fully abreast of the science of his times. The text of the Vita Nuova, the Convito and the Divine Comedy has been searched and made to yield a thousand or more intrinsic evidences of Dante's complete mastery of everything relating to medicine in the thirteenth century. Every student of Dante will be interested in this new marshaling of old facts which, by their new association, have come to have a new significance.

Daniel Drake and His Followers. Historical and Biographical Sketches by Otto Juettner, A.M., M.D. Royal 8vo, pages 496. Illustrated. Price $5. Cincinnati: Harvey Publishing Company, 1909.

The medical profession of the United States should greet with satisfaction the appearance of this work which does justice, as justice has never before been done, to the memory of one of the greatest medical characters of the nineteenth century. Daniel Drake was born in 1785 and died in 1852. His life, identified almost entirely with Cincinnati, is an essential part of the history of that city; but his activities reached beyond his city and state. He was a scientist in a broad sense of the word; he was a physician, not only of deep thought, but of almost prophetic insight into the problems of his profession; he was an originator, a builder of institutions and of communities; and he was a citizen who recognized and responded to every civic obligation.

These various attributes viewed in the light of their detailed manifestations, comprise the great body of Dr. Juettner's book, which, not only to the physician interested in his profession, but to the citizen interested in his country, reads like a romance of the realistic school. It is important to emphasize the realism of the book, for in its pages Drake is not a mere steel engraving—although an excellent one of him forms the frontispiece—but here he walks and talks, teaches and preaches, loves and hates, a veritable human being with a full assortment of human characteristics. Here you can shake hands with him, talk with him and know him and realize that he is all the time worth knowing.

Dr. Juettner in this work has exemplified an important principle that is new in the development of polybiographies. He has taken Drake as his strong initial character and has traced the influences that have emanated from him and that have largely co-ordinated the medical activities, not only of Cincinnati, but of an important part of the entire country for a whole century. In doing so he has given the history of every man who has been identified with medical Cincinnati during all that long period. In this way one encounters in this book the names and portraits of Gofroth, Eberle, Moorhead, Slack, Mussey, Shotwell, Delamater, Locke, Wright, Comegys, the Lawsons, Gross, Parker, Rogers, McDowell, Rives, Tate, Blackman, Graham, Armor, Bartholow, Conner and R. C. S. Reed, a group of which the last named is the only survivor. The history of medical institutions and of the contemporary profession of Cincinnati is traced with accuracy. This is not a work filled with the usual fulsome praise of its subjects, but one written in excellent literary form and with a just critical appreciation of the facts presented. It is, therefore, a distinct contribution to the history, not only of the medical profession, but of the country.

Hints to Ships' Surgeons. By J. F. Elliott, L.R.C.S., L.R.C.P. Cloth. Pp. 64. Price, 2s. London: John Bale, Sons & Danielson.

A useful little book for those who wish to sail as surgeons from English ports. It gives practical suggestions on the method of procuring an appointment as a ship surgeon; duties at sea; what to do in various emergencies; the matter of fees; and a list of the shipping lines from England carrying passengers and surgeons.

Pure Milk and the Public Health. A Manual of Milk and Dairy Inspection. By Archibald Robinson Ward, B.S.A., D.V.M., Assistant Professor of Bacteriology and Director of the State Hygienic Laboratory, University of California, Berkeley, Cal. With Two Chapters by Myer Edward Jaffa, M.S., Professor of Nutrition and Director of the State Food and Drug Laboratory, University of California. Cloth. Pp. 218, with illustrations. Price, $2. Ithaca, N. Y.: Taylor & Carpenter, 1909.

The improvement of the milk supply is receiving much attention in this country at this moment, and the relative merits of certified, inspected and pasteurized milk are widely discussed, especially by physicians. The appearance of Professor Ward's book, therefore, is most opportune. After a general exposition of the origin of bacterial contamination of milk and the changes in milk caused by bacteria, Ward devotes two chapters to the discussion of epidemic diseases transmitted by milk, and gives special attention to the transmissibility of bovine tuberculosis to man. This most important and much-debated subject is treated with conservatism and impartiality, and a sane attitude in regard to it is taken. Since opinions as to the frequency of transmission are still divided, the correct course to be pursued is to take no chances, but to prevent as far as possible the distribution of milk containing tubercle germs. The only successful means to accomplish this object lies in the application of the tuberculin test.

The chapters on the municipal sanitary control of milk and on pasteurization are of special interest. Pasteurization is ably defended on the grounds of protecting consumers against pathogenic bacteria and as a step toward an ideal milk supply. In the chapter on the microscopic analysis of milk, attention is given to the danger of drawing fallacious conclusions from the presence of streptococci and leucocytes in milk, and the colony count is shown to be the most valuable method of controlling milk supplies. An interesting account is given of the present status of milk commissions, their objects, methods and the results accomplished. The chapters on the analysis and adulteration of milk by Professor Jaffa are useful additions, especially for those actively engaged in this work.

The information which may be gathered from this book is invaluable for all those interested in the all-important and difficult movement toward a sanitary milk supply.

T. E. K. A.—Jarlibro, 1909. Vol. I. Eldonita de la Tutmonda Esperanta Kuracista Asocio. Kun la portreto de l'honora prezidanto de la T. E. K. A., D-ro L. L. Zamenhof. Pp. 66. Paper. Price, 0.4 sm (20 cents). Kötzschenbroda-Dresden: H. F. A. Thalwitzer, 1909.

This is the first year-book of the World Association of Esperantist Physicians, an association inaugurated at the Fourth International Esperantist Congress at Dresden, August, 1908. It contains a preface by Dr. Zamenhof, an account of the origin of the association, by the president, Professor Dor, of Lyons, and a summary by the secretary, Dr. Robin, of Warsaw, of what the association has accomplished. The list of officers and members occupies 23 pages, the total number of members at the date the book went to press being 428, though it is said that some hundreds have been since added. Dr. H. F. A. Thalwitzer writes on "Esperanto and the Red Cross," and Dr. F. Uhlmann-Huttwil on "Esperanto Medical Nomenclature." A table of national moneys, and their relation to the international money system devised by the Esperantists, is added. The booklet contains a portrait of Dr. L. L. Zamenhof, inventor of the language.

Human Physiology. An Elementary Text-Book of Anatomy, Physiology and Hygiene. By John W. Ritchie, Professor of Biology, College of William and Mary, Virginia. Cloth. Pp. 362, with illustrations. Price, 80 cts. Yonkers-on-Hudson, New York: World Book Co., 1909.

As a text-book for children in the public schools, this volume is necessarily elemental. In common with most books for the purpose, the use of alcoholic beverages is uncompromisingly condemned. The chapter on "consumption" emphasizes the importance of good food and fresh air in treatment. A chapter devoted to accidents gives a brief description of the methods of resuscitating persons apparently drowned, stopping bleeding from an artery, treating sunstroke, burns, etc. The book contains practical suggestions and is to be commended.

PARCIMONY IN NUTRITION. By Sir James Crichton-Browne, M.D., LL.D., F.R.S., Lord Chancellor's Visitor in Lunacy, London. Cloth. Pp. 111. Price, 75 cents. New York: Funk & Wagnalls Co., 1909.

This book is frankly polemical. It is a reply to the arguments of Horace Fletcher and of Professor Chittenden of Yale, who maintain that much less proteid food is needed than is prescribed in the standard diets of Voit and Atwater.

Chittenden's experiments and conclusions are interesting and the latter tempting to the medical man who frequently has to prescribe for patients with stomach disorders and who has learned that he can contribute greatly to their comfort and ultimately lead them to recovery chiefly by curtailing the quantity of food which they eat. Crichton-Browne's arguments are chiefly these: "First, that it is an initial objection to Chittenden's view which is not easily met that it contravenes all human experience." The standard diets of Voit and Atwater represent the average usage of civilized men; at least those of Europe and America. Crichton-Browne has collected statistics which seem to show that even in Japan to-day practically the same proportion of nitrogen per pound of body weight is consumed as would be used on Voit's standard. He raises the question whether the long ages during which they have been vegetarians has not led to their diminutive stature, apparently forgetting that Buddhists in China and India are large men but have been as strict vegetarians for as long or a longer time.

The second contention is that a diet rich in proteids makes for physical and mental energy.

Third, Crichton-Browne points to the ill effects, both mental and physical, of the insufficient diet of English prisons, where the proteids are furnished in about the quantity prescribed by Chittenden or a little larger. But he overlooks the fact that in diets one and two of the prisons the total calories is too small and may account for the ill condition of prisoners rather than proteid deficiency. Moreover, that other factors than the quantity of food have to do with it is shown by the complaints of star patients whose food furnished more than twice as much proteid as Chittenden recommends and 2,398 calories.

Fourth, Crichton-Browne urges that "busy men have not time to go to bed and starve for two or three days when they have not appetite, nor can they devote a large portion of their lives to mastication." His argument is not very conclusive.

Fifth, he says, "There has not yet been time for any convincing proof of the utility or even safety of the reduced proteid diet." He thinks that ill effects may develop in late life which can be ascribed to such dietetic restriction. But all this is problematic. If we do not know that the restricted diet is useful or safe, neither do we know that it is harmful. Chittenden's experiments, which extended over six months and more, show that there was no immediate ill effect and that none developed during that time. Crichton-Browne says of Chittenden's dogs: "They led a placid and cloistered existence and so asceticism probably suited them. Not until a pack of foxhounds have got satisfactorily through a winter's work on Chittenden's reduced diet can his experiments be accepted as anything more than a curious physiologic feat."

Sixth, he points to the natural diet of the infant at the breast, where the child gets of proteid what would be equivalent for a man of 150 pounds, from 122 to 145 grams; more than twice the allowance made by Chittenden for man.

Lastly, he points to the good effects of forced feeding in tuberculosis and neurasthenia and after infections. He believes that there is no evidence of an accumulation of clinkers because of the heavy stoking.

This little book is well worth reading and considering. As stated, the book is polemical, and like all such it has the faults of a debate and it awakes contention in its readers. It is well, however, for physicians and laymen to halt and consider carefully the pros and cons of this subject.

LIFE'S DAY. By William Seaman Bainbridge, A.M., M.D. Cloth. Pp. 308. Price, $1.35. New York: Frederick A. Stokes Co.

The fanciful title of this book suggests that it was intended for non-medical readers; and the foreword explains that it is based on a series of lectures delivered at Chautauqua. It appears to be designed especially to enlarge the mental horizon of those who have much leisure and little information; it treats sketchily the subjects of heredity, environment, education, infancy, childhood, the "irresponsible age," adolescence, middle age and old age. A little biology, a little physiology, a little hygienic theory and precept, liberally sprinkled with quotations from poets and men of science, make up a volume which will be found, by those who like that kind of thing, to be just the kind of thing they like. Dr. Bainbridge has an agreeable style, and says that he is not a faddist or an overzealous enthusiast, but merely an earnest advocate of common sense and moderation in all things.

THE THEORY AND PRACTICE OF INFANT FEEDING. By Henry Dwight Chapin, A.M., M.D., Professor of Diseases of Children at the New York Post-Graduate Medical School and Hospital. Edition 3. Cloth. Pp. 350, with illustrations. Price, $2.25. New York: William Wood & Co., 1909.

In this new edition of his book Dr. Chapin emphasizes as before the "biologic" aspect of infant-feeding with especial reference to the specificity of the milk of each mammal to its own young; devotes 100 very instructive pages to the subject of cow's milk, its composition, production, handling, examination, etc., and elaborates his views on the value and use of dextrinized (even standardized) gruels. The general recommendations about infant-feeding itself are in harmony with the views of the so-called "American school." The peculiar indifference of certain American writers on infant-feeding to what is being done abroad is nowhere exemplified better than here. The five years since the appearance of the last edition have been by far the most fruitful in this subject—the work of Budin and Heubner has been recognized, and that of Czerny and Keller and Finkelstein and others has revolutionized the whole subject in that time and has put it, for the first time, on a rational scientific basis. And yet in the 350 pages of this book no intimation is given of this truly epoch-making work. Except for the excellent chapters on cow's milk and for the originality of its ideas about the "biologic" aspect of infant-feeding and of the use of dextrinized gruels the book is disappointing so far as it relates to the present status of the science and art of infant-feeding.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U. S. Army, for the week ended May 29, 1909:

Baily, H. H., capt., ordered to accompany troops from Washington Barracks, D. C., to San Francisco, and then return to Fort Myer, Va.

Gostin, B. S., 1st lieut., granted leave of absence for three months, when relieved from duty in the Philippines Division.

Waterhouse, S. M., major, granted leave of absence for four months, when relieved from duty in the Philippines Division.

Ireland, M. W., major, ordered to proceed to New York City and return, on business pertaining to the medical supply department.

Harris, J. R., capt., relieved from duty at Fort Worden, Wash., and ordered to Fort George Wright, Wash., for duty.

Hall, J. F., capt., granted leave of absence for four months, about Oct. 15, 1909.

Shillock, Paul, major, ordered to Hot Springs, Ark., for treatment at the Army and Navy General Hospital.

Vose, W. E., capt., granted leave of absence for two months, about August 20.

McCulloch, C. C., Jr., major, granted leave of absence for four months.

Shockley, M. A. W., major, granted leave of absence for one month, about June 3.

Morse, A. W., major, relieved from duty at Fort Leavenworth, Kan., and ordered to the Presidio of Monterey, Cal., for duty.

Keefer, F. R., major, relieved from duty at the Presidio of Monterey, Cal., and ordered to Fort Wadsworth, N. Y., for duty.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ended May 29, 1909:

Bogert, E. B., Jr., surgeon, detached from the Naval Academy and granted leave until Sept. 15, with permission to go abroad.

Ledbetter, R. E., surgeon, commissioned surgeon, with rank of lieut.-commander, from Sept. 19, 1908.

Gill, J. E., P. A. surgeon, detached from the *Dubuque* and ordered home to wait orders.

Smith, C. W., asst.-surgeon, detached from the Naval Hospital, Norfolk, Va., and ordered to the *Dubuque*.

Rose, M. E., asst.-surgeon, ordered to the Naval Hospital, Norfolk, Va.

Fiske, C. H., surgeon, commissioned surgeon, with rank of lieut.-commander, from Sept. 1, 1907.

Butler, C. St. J., surgeon, commissioned surgeon, with rank of lieut.-commander, from Oct. 11, 1908.

Cole, H. W., Jr., P. A. surgeon, commissioned P. A. surgeon, with rank of lieutenant, from Oct. 5, 1908.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended May 26, 1909:

Kerr, J. W., asst.-surgeon general, detailed to represent the service at the meetings of the American Association of Medical Milk Commissions, June 7, and the American Medical Association, June 8-11, 1909, in Atlantic City, N. J.

Wasdin, Eugene, surgeon, granted 1 month's leave of absence from May 22, 1909, on account of sickness.

Cobb, J. O., surgeon, granted 2 months' leave of absence from June 15, 1909.

Billings, W. C., P. A. surgeon, relieved from duty at the Revenue Cutter School of Instruction and directed to report to the commanding officer of the practice cutter *Itasca*.

Fox, Carroll, P. A. surgeon, granted 7 days' leave of absence from May 13, 1909.

Currie, Donald H., P. A. surgeon, detailed as director of the Leprosy Investigation Station at Molokai, T. H., to take effect June 1, 1909, vice acting asst.-surgeon Walter R. Brinckerhoff, resigned, to take effect May 31, 1909.

Holt, J. M., P. A. surgeon, granted 1 month's leave of absence from July 5, 1909.

Herring, R. A., asst.-surgeon, granted 1 month and 4 days' leave of absence from June, 5 1909.

Hamilton, H. J., acting asst.-surgeon, granted 9 days' leave of absence from May 8, 1909.

Hunter, Sam. B., acting asst.-surgeon, granted 4 days' leave of absence from May 18, 1909.

Naulty, Charles W., Jr., acting asst.-surgeon granted 14 days' leave of absence from June 11, 1909.

APPOINTMENT

Kellogg, Dr. W. H., appointed an acting asst.-surgeon for duty in the office of the U. S. consul at La Guayra, Venezuela.

BOARD CONVENED

Board of medical officers convened to meet at the Bureau May 18, 1909, for the purpose of making a physical examination of an officer of the Revenue-Cutter Service. Detail for the board: Asst.-Surgeon General W. J. Pettus, chairman; P. A. Surgeon, J. W. Trask, recorder.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended May 28, 1909:

SMALLPOX—UNITED STATES

California: Los Angeles, May 1-8, 1 case; Sacramento, May 8-15, 2 cases; San Francisco, May 1-8, 1 case; Stockton, April 1-30, 1 case.
Colorado: March 1-31, 81 cases.
Georgia: Macon, May 9-16, 2 cases.
Illinois: Danville, May 9-16, 10 cases; Galesburg, May 8-15, 1 case; Springfield, May 7-14, 1 case.
Indiana: Evansville, May 8-15, 1 case; Fort Wayne, May 1-8, 2 cases; South Bend, May 8-15, 1 case.
Iowa: Council Bluffs, May 9-16, 1 case; Davenport, May 2-9, 2 cases.
Kansas: Atchison, Feb. 27-April 17, 5 cases; Kansas City, May 8-15, 11 cases, 2 in vicinity; Wichita, May 8-15, 4 cases.
Kentucky: Lexington, May 8-15, 5 cases; Newport, 1 case; Paducah, May 1-15, 12 cases.
Louisiana: New Orleans, May 8-15, 6 cases.
Maine: Van Buren, May 8-15, 1 case.
Minnesota: Duluth, May 6-13, 9 cases.
Nebraska: Lincoln, April 1-30, 24 cases.
New Jersey: Perth Amboy, March 4-April 29, 30 cases.
North Carolina: Charlotte, May 7-14, 1 case.
Ohio: Cincinnati, May 7-14, 9 cases; Massillon, May 9-16, 1 case; Toledo, May 1-8, 1 case; Warren, 1 case.
Tennessee: Knoxville, May 8-15, 1 case.
Texas: Fort Wayne, April 1-30, 15 cases; San Antonio, May 1-8, 1 case; Waco, May 21, 4 cases, imported.
Virginia: Portsmouth, May 11-18, 4 cases.
Washington: Seattle, April 1-30, 4 cases.
West Virginia: Wheeling, May 8-15, 1 case.
Wisconsin: Milwaukee, May 1-15, 5 cases.

SMALLPOX—INSULAR

Philippine Islands: Manila, March 20-April 10, 35 cases, 1 death.

SMALLPOX—FOREIGN

Algeria: Bona, April 1-30, 23 cases, 13 deaths.
Argentina: Buenos Aires, Feb. 1-28, 2 deaths.
Brazil: Bahia, March 27-April 17, 21 cases, 6 deaths; Sao Paulo, March 15-21, 2 deaths.
Canada: Halifax, May 1-8, 5 cases; Vancouver, April 1-30 1 case.
Chile: Santiago, April 27, epidemic.
China: Amoy, April 3-10, present.
Egypt: Alexandria, March 1-31, 8 cases, 4 deaths.
France: Marseille, April 1-30, 3 deaths; Paris, April 18-May 1, 4 cases.
India: Bombay, April 13-20, 18 deaths; Calcutta, April 3-10, 197 deaths; Madras, March 27-16, 6 deaths; Rangoon, April 3-10, 11 deaths.
Indo-China: Saigon, March 27-April 3, 7 cases, 5 deaths.
Italy: General, April 25-May 2, 12 cases; Genoa, April 1-30, 3 cases; Naples, April 25-May 2, 20 cases, 1 death.
Java: Batavia, April 3-10, 5 cases, 1 death.
Mexico: Chihuahua, May 2-9, 1 death; Guadalajara, April 22-29, 2 deaths; Monterey, May 2-9, 8 cases; Puebla, May 10, present.
Portugal: Lisbon, May 1-8, 12 cases.
Russia: Moscow, April 17-24, 35 cases, 8 deaths; Odessa, April 17-24, 1 case, 2 deaths; Riga, May 1-8, 2 cases; Warsaw, Feb. 27-March 6, 4 deaths.
Siam: Bangkok, March 1-31, 30 cases, 18 deaths.
Spain: Barcelona, April 27-May 3, 9 deaths; Valencia, April 24-May 1, 6 cases.
Straits Settlements: Singapore, May 27-April 3, 1 death.
Tripoli: Tripoli, April 10-24, 80 cases, 16 deaths.
Turkey: Constantinople, April 18-25, 4 deaths;; Smyrna, April 8-15, 1 death.

YELLOW FEVER

Brazil: Bahia, March 27, 2 cases, 9 deaths; Para, April 18-May 1, 10 cases, 10 deaths.
Ecuador: Guayaquil, April 3-17, 36 cases, 10 deaths.

CHOLERA—INSULAR

Philippine Islands: Provinces, March 20-April 10, 245 cases, 126 deaths.

CHOLERA—FOREIGN

India: Bombay, April 13-20, 44 deaths; Calcutta, April 3-10, 111 deaths; Rangoon, 6 deaths.
Russia: St. Petersburg, April 29-May 6, 12 cases, 4 deaths.

PLAGUE

China: Amoy, April 10, present.
Ecuador: Guayaquil, April 3-17, 30 cases, 9 deaths.
India: General, March 27-April 10, 5,722 cases, 4,684 deaths; Bombay, April 13-20, 382 deaths; Calcutta, April 3-10, 85 deaths; Rangoon, April 2, 18 deaths.
Indo-China: Saigon, March 27-April 3, 2 cases, 2 deaths.
Japan: Kyoto, April 17-24, 1 case, 1 death.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

The Doctor as a Vicarious Philanthropist

In a recent issue of the *British Medical Journal* appears an unusually interesting editorial under the above title. As the problem considered is one which also confronts the American physician, the conclusions of our British contemporary will doubtless be of interest. After stating that "the position in which medical men are placed when called on to attend urgent cases of labor or street accidents, with the certainty that in most cases they will receive no remuneration, is fast becoming intolerable," the editorial says that two cases have recently occurred which forcibly emphasize this fact.

In the first case, a physician was severely criticized by the public press for not attending a street accident when sent for, notwithstanding the fact that he was not a police surgeon, that he had been refused payment by the police authorities in other cases to which they had called him and that he had notified them that he would not in the future respond to their summons. In spite of these facts, the newspapers made severe comments regarding his refusal to respond to the call.

In the second case, a physician was called late at night to go to a labor case and asked that his fee be guaranteed before he respond. The physician denies that he refused to go, but says that after some discussion the husband deliberately turned away. Another doctor was summoned and on his arrival found that twins had been born, but that the mother had died from heart failure through exhaustion. The coroner in his verdict on the case reminded the jury that the impression that a doctor is a public servant and is required to go whenever called is incorrect, as a doctor is entitled to payment for his services or to the assurance that he will be paid. The jury, in returning its verdict, stated that death was due to heart failure arising from exhaustion from want of proper attention and added a rider to its verdict that it was "unwise for doctors to raise the question of fees."

Commenting on the verdict, the editorial says: "What the jury probably meant but hardly liked to say after the coroner's remarks, was that doctors ought to go to cases whenever summoned without question, and trust to chance payment afterward." The editor then proceeds to state that if in a particular case the question were simply whether a doctor, knowing that refusal to attend a case would involve suffering or danger which he might prevent, yet refused to go on the sole ground that his fee was uncertain, he would fairly be deemed guilty of inhumanity, and that every mem-

ber of the profession will agree that, in the words of the Poor Law Commission, "the physical condition of the patient should be the first consideration."

But this is only half the question. The primary responsibility for making proper provision for medical attendance in confinement cases rests on the patient or on her husband. If they fail in their duty, it then falls on the community as a whole. This principle is clearly acknowledged in the case of paupers, who are cared for not only along medical lines, but in every way at the expense of the state, even though their poverty be their own fault. This is carried to such an extent that the medical treatment given paupers is actually better than that given those members of the working classes who are just above the grade of paupers. The editor consequently concludes that the duty of providing proper medical attendance in cases of labor, accident, etc., falls on the individual or on the state, and that if the individual does not make adequate provision for such services the state should do so. In the case cited above both the individual and the state had failed to do their duty and the burden of assuming this responsibility without any guarantee of proper compensation was thrust on the physician as a representative of the medical profession, which is thus made to carry the burden which should be borne by the whole of society instead of being placed on a part.

After commenting on the situation in England, in which the midwives act makes satisfactory provision for the care of women unable to pay for medical services, the editor asks, "In this state of things, what must medical men do? If they refuse to attend these cases without guarantee of a fee they are called brutal and inhumane. If they do attend, they are voluntarily taking on themselves the burden which the local government board acknowledges ought to be borne by the community. They are doing state work without state pay and, as experience shows, if they will do it, they may go on doing it indefinitely."

Regarding accident cases, in some of the larger cities in England definite arrangements are made for payment on a fixed scale of fees to medical men called by the police to attend cases of accident, but in by far the greater number of towns there is no provision at all. "The authorities simply evade their responsibility by trusting that the humanitarian feeling of medical men will compel them to do the work for nothing. It is impossible that this condition of affairs should continue. Humanity will always claim sacrifice and will always get it from the medical profession. It is freely admitted that a man's responsibilities for helping others increases with his ability to help, but it can never be conducive to the welfare of the community that any one section of the community should be systematically exploited for the rest. Sydney Smith says that philanthropy in practice generally meant that Jones thought that Smith should do something for the relief of people in distress and this view is generally held by the public in respect to medical practitioners. It is high time that even coroners and their juries should realize that however convenient it may be to be charitable at another man's expense, the doctor can not live if he is to be regarded as a vicarious philanthropist."

These principles are of the greatest importance. Obviously the duty of caring for the injured and suffering members of the community devolves either on the individual or on the community at large. If the individual does not provide or it not able to provide proper medical attendance, then it is plainly the duty of the community to furnish it for him. The obligation to furnish such relief rests on the physician the same as on any other individual member of the community, but it should be met by the doctor in the payment of exactly the same amount of taxes that is paid by every other citizen of the same degree of material prosperity and not by a special tax levied on him as a professional man, in the shape of unremunerated and gratuitous professional service. It is impossible to avoid the conclusion that the physician is every year becoming more and more a state health officer and that the community has cheerfully and unthinkingly allowed the medical profession to do the charitable work which by right should devolve on the community itself. The appeal is being made constantly to the humanitarian instincts of the individual physician and seldom, we are glad to say, without response, but this does not palliate the economic injustice perpetrated by the community in unloading its plain charitable duty on the medical profession, simply because he has heretofore tacitly permitted it.

Marriages

William Francis Larkin, M.D., to Miss Lenore Beck, both of Chicago, June 2.

Robert J. Beebe, M.D., to Miss Ida Schulty, both of West Branch, Mich., May 19.

Arnold C. Klebs, M.D., to Mrs. Harriet K. Newell, both of Chicago, in Connecticut, May 22.

Charles W. Vroom, M.D., Whitten, Iowa, to Mrs. Anna Vroom of Athens, Pa., February 4.

William Butler Lee, M.D., Nashville, to Miss Robbie Church, of Franklin, Tenn., May 12.

W. Horace Witherspoon, M.D., Harrodsburg, Ky., to Miss Margaret Stubbs, of New Orleans, April 12.

David Judkins Dickson, M.D., to Mrs. Katharine Griswold Winchester, both of New York City, May 20.

Samuel Pierson Brush, M.D., North Creek, N. Y., to Miss Frances Lela Morse, of Troy, N. Y., May 27.

Elbert A. Ainsworth, M.D., to Mrs. Susie S. Ash, both of West Union, Iowa, at New York City, May 8.

Alexander C. Wentz, M.D., to Miss Mary C. Kemper, both of Hanover, Pa., at Camden, N. J., Dec. 1, 1908.

William Edward Moseley, Jr., M.D., Baltimore, to Miss Sadie Beatrice Armistead of Cleveland, at Baltimore, May 22.

Deaths

Oscar Otis Burgess, M.D. College of Physicians and Surgeons, New York City, 1857; formerly president of the San Francisco Gynecological Society, the City and County Medical Society of San Francisco, the Medical Society of the State of California; vice-president of the first Pan-American Medical Congress; and city physician of Rochester, N. Y.; assistant surgeon and afterwards consulting surgeon to the Womans' Hospital, San Francisco; assistant surgeon to St. Luke's Hospital and the Children's Hospital; at one time a member of the State Board of Health; died at his home in San Francisco, May 20, from cerebral hemorrhage, aged 77.

Charles Burnham Porter, M.D. Harvard Medical School, Boston, 1865; and later demonstrator of anatomy and professor of clinical surgery in his alma mater; a member of the Massachusetts Medical Society; for many years surgeon, and later consulting surgeon to the Massachusetts General Hospital; surgeon of the Armory Square Hospital, Washington, D. C., during the Civil War; formerly vice-president of the American Surgical Association, and president of the Boylston Society of Harvard Medical School; died suddenly at his home in Boston, May 21, from cerebral hemorrhage, aged 69.

Oscar Nettleton Taylor, M.D. University of California, San Francisco, 1899; a member of the American Medical Association; instructor in diseases of the eye, ear, nose and throat in the University of California; and one of the best known athletes of the West; died in Lane Hospital, San Francisco, May 23, from meningitis due to operation he attempted to perform on himself for the removal of a nasal spur.

Reuben Parsons Thompson, M.D. Long Island College Hospital, 1886; formerly of Red Bank, N. J.; who was sentenced to imprisonment for eighteen years for malpractice in 1881 and served during his sentence as head nurse and assistant physician in the hospital ward; died at the state prison, Trenton, N. J., May 16, on the eve of pardon, from pulmonary hemorrhage.

Adele Stuart Hutchinson, M.D. Boston University School of Medicine, 1877; for many years a practitioner of Minneapolis, Minn.; and a member of the staff of the City Hospital; for six years a member of the State Medical Examining Board; and for several terms president of the Medical Woman's Club; died at her home in Andover, Mass., May 20, aged 62.

Samuel Fisler Stanger, M.D. Jefferson Medical College, Philadelphia, 1875; formerly of Harrisonville, N. J.; for ten years a member of the Board of Prison Inspectors; resident physician at the New Jersey State Prison, Trenton; died at his home in Trenton, May 21, from heart and kidney disease, aged 59.

Julius C. Mills, M.D. University of Pennsylvania, Philadelphia, 1869; a member of the Medical Society of the State of North Carolina; surgeon of the Thirteenth North Carolina Infantry, C. S. A. during the Civil War; died at his home in Reidsville, N. C., May 18, from cancer of the stomach.

William Allen King, M.D. Minnesota Hospital Medical College, Minneapolis, 1888; a member of the Washington State Medical Association; city health officer of Blaine, Wash., and medical inspector in the U. S. Immigration service; died at his home, May 15, from pneumonia, aged 61.

Nels Gustaf J. Dahlstedt, M.D. University of Minnesota, Minneapolis, 1889; health officer and postmaster of Port Wing, Wis., since 1902, and town clerk, justice of the peace and secretary of the school board since 1904; died at his home, April 20, from locomotor ataxia, aged 60.

Max Julius Gerdes, M.D. California Eclectic Medical College, Los Angeles, 1900; College of Physicians and Surgeons, San Francisco, 1905; in the government service in the Canal Zone and stationed at Lobaco; died at Ancon, April 7, 1908, from typhoid fever, aged 38.

Luther Elsworth Zech, M.D. University of Maryland, Baltimore, 1892; a member of the Medical Society of the State of Pennsylvania and of the borough school board; died suddenly at his home in York New Salem, Pa., from angina pectoris, May 22, aged 47.

Eugene LaFon Nelson, M.D. Rush Medical College, Chicago, 1864; assistant surgeon of the Eighth Illinois Volunteer Cavalry during the Civil War; died at his home in Springfield, Mo., April 20, from general debility, following cerebral hemorrhage, aged 69.

Benjamin Frank Lansdale, M.D. University of Maryland, Baltimore, 1866; representative in the Maryland legislature from Montgomery county, Md., in 1904; died at his home in Damascus, May 21, from cancer of the stomach, aged 64.

Harold Emory Jones, M.D. Kentucky School of Medicine, Louisville, 1900; M.R.C.S. Edinburgh, 1895; formerly physician to the Santa Fe System Hospital at Las Vegas, N. M.; died in New York City, May 12, from pneumonia, aged 36.

Wyllie C. Ogden, M.D. Bellevue Hospital Medical College, New York City, 1885; of Colorado Springs; a member of the Colorado State Medical Society; died at his old home in Fairmont, W. Va., May 12, from tuberculosis, aged 44.

Preston J. Edwards, M.D. Western Reserve University, Cleveland, 1892; of Montville, Ohio; a member of the Ohio State Medical Association; died in the Lakeside Hospital, Cleveland, May 16, from malignant disease, aged 58.

Alexander Harmon McLeod, M.D. University of Maryland, Baltimore, 1866; for many years an official of the Cincinnati, Hamilton and Dayton Railroad; died at his home in Wyoming, Cincinnati, May 11, from pneumonia, aged 73.

Allen Swan King, M.D. Tulane University, New Orleans, 1902; formerly of New Orleans; commander of the Berwick Division of the Louisiana Naval Brigade; was shot and killed in his office in Morgan City, La., May 19.

Walter E. Hall, M.D. Jefferson Medical College, Philadelphia, 1878; a member of the American Medical Association; a prominent citizen and philanthropist of Burlington, N. J., died at his home, May 22, aged 51.

Cyrus Pain Bryan, M.D. Jefferson Medical College, Philadelphia, 1855; of Savannah, W. Va.; died in the Greenbriar General Hospital, Ronceverte, W. Va., April 23, as the result of a fracture of the hip, aged 80.

Harry B. Clark, M.D. Chicago Homeopathic Medical College, 1903; a member of the Michigan State Medical Society; formerly of Mancelona, Mich.; died at his home in Jackson, Mich., May 16, aged 29.

Romnald Arthur Girardin, M.D. Laval University, Montreal, 1898; of Menominee; a member of the Michigan State Medical Society; died in a sanitarium in Montreal, from locomotor ataxia, May 9, aged 40.

James L. Hedleston, M.D. Medical College of the State of South Carolina, Charleston, 1855; of Woodlawn, Ala.; a Confederate veteran; died at the home of his daughter in Woodlawn, May 19, aged 78.

Edward S. Harrison, M.D. Medical College of Georgia, Augusta, 1872; a member of the Medical Association of Georgia; died at his home in Thomson, May 20, from cerebral hemorrhage, aged 63.

John Murray Jordan, M.D. University of Pennsylvania, Philadelphia, 1883; for the last fifteen years a publisher of Philadelphia; died at his home in Germantown, May 19, from heart disease, aged 45.

David Maple Barkley, M.D. University of Louisville (Ky.) 1861; for 38 years a practitioner of Sturgis, Ky.; died at the home of his son in Parkland, Louisville, May 24, from senile debility, aged 75.

John David Shanor, M.D. Western Reserve University, Cleveland, 1881; a member of the American Medical Association; died at his home in Allegheny, Pa., from paralysis, May 18, aged 54.

Charles King, M.D. American University of Pennsylvania, Eclectic, Philadelphia, 1878; of Seattle, Wash.; died in the Pacific Hospital in that city, April 26, from erysipelas, aged 58.

Horace Bentley, M.D. Eclectic Medical Institute, Cincinnati, 1848; one of the founders of Woodbridge (Cal.) College; died at his home in Woodbridge, June 27, 1908, from paralysis, aged 80.

Frederick Wesley Park, M.D. Beaumont Hospital Medical College, St. Louis, 1890; a member of the Illinois State Medical Society; died at his home in Fieldon, Ill., May 7, aged 42.

James S. Carter (license, Tenn., 1889); of Selmer, Tenn.; a Confederate veteran; died in Memphis, May 14, two weeks after an operation for the removal of gallstones, aged 64.

J. N. Cowden, M.D. Cleveland University of Medicine and Surgery, 1894; died at his home in Lowellville, Ohio, Nov. 14, 1908, from cerebral hemorrhage, aged 68.

William C. A. Blauw, M.D. Bennett Medical College, Chicago, 1895; of Chicago; died in Cook County Hospital, Sept. 28, 1908, from chronic nephritis, aged 75.

James Leonard Burroughs, M.D. Maryland Medical College, Baltimore, 1903; died at his home in Louisville, Miss., April 19, from cerebral hemorrhage, aged 42.

Isaac Guss, M.D. Jefferson Medical College, Philadelphia, 1866; died at his home in Philipsburg, Pa., Feb. 14, 1908, from chronic bronchitis, aged 71.

John W. Cooper, M.D. Barnes Medical College, St. Louis, 1895; formerly of Terre Haute, Ind.; died at his home near Roff, Okla., recently, aged 35.

John William White, M.D. Eclectic Medical Institute, Cincinnati, 1898; died at his home in West Alexander, Pa., March 25, from tuberculosis, aged 35.

George H. Hightower, M.D. Georgia Eclectic Medical College, Atlanta, 1884; died at his home in Dalton, Ga., May 13, from acute gastritis, aged 55.

Henry Kehm, M.D. Jefferson Medical College, Philadelphia, 1871; died at his home in East Berlin, Pa., March 21, from locomotor ataxia, aged 64.

Andrew Sproule Martin, M.D. Trinity Medical College Toronto, 1898; formerly of Lipton, Sask.; died in Regina, Sask., May 1, aged 36.

John Wesley Colburn, M.D. Missouri Medical College, St. Louis, 1875; died at his home in Kansas City, Mo., May 4, from nephritis, aged 66.

Henry S. Jones, M.D. Louisville (Ky.) Medical College, 1862; died at his home in Corydon, Ky., May 22, from peritonitis, aged 74.

Samuel R. Bass, M.D. University of Louisville (Ky.), 1861; died at his home in Campbellsville, Ky., May 21, from rheumatism, aged 73.

Thomas Irven Elliott, M.D. Cleveland, 1854; died at his home in Sutton, W. Va., May 31, 1908, from organic heart disease, aged 81.

William Hughes, M.D. New York University, New York City, 1869; died at his home in Lima, Ind., May 13, aged 70.

George Warren Wild, M.D. Boston University, 1878; died at his home in Rochester, N. Y., May 24, aged 54.

John Foote, M.D. University of Buffalo, N. Y., 1851; died at his home in Kansas City, Mo., May 17, aged 81.

A. J. G. Hall, M.R.C.S. Edinburgh, Scotland, 1845; died at his home in Kinmundy, Ill., April 1, aged 90.

L. Young Hayes (license, Tenn., 1904) died at his home in Fayetteville, Tenn., May 18, aged 41.

Miscellany

PREMATURE BURIAL

Alleged Cases Usually Found to be Based on Hearsay and Presumptive Evidence

The subject of premature burial has long been a favorite theme for lovers of the gruesome and for those who find a delight in creating imaginative horrors on which to expend a perverted sense of sympathy. Like the vividly gory details to be found in antivivisectionist "literature," the testimony given by those whose hobby is "burial alive" is of the hearsay and presumptive order and invariably apocryphal. A case that would have furnished the basis for an elaborate "thriller" on the subject of premature burial, was discussed in the *Medical Press and Circular*, March 17, 1909.

While a grave was being filled, in an English village churchyard, sounds of rapping were heard which it was thought proceeded from the coffin. The lid of the coffin was immediately removed by the undertaker and a physician was summoned. The corpse, however, appeared exactly as when placed in the coffin, and there was not the slightest evidence that any movement had occurred. The coffin was replaced and as for the second time the grave was being refilled, rapping was again supposed to occur. As our British contemporary says: "Had the affair not been at once investigated, it would doubtless have added another to the bogus stories quoted in support of the gruesome assumption that live burial is of frequent occurrence."

We have investigated at different times some of the reports of premature burials or premature encoffinments that crop up perennially in the press. The following appeared in a Boston publication, *Our Dumb Animals*, February, 1908:

PREMATURE BURIAL

Wichita, Kan.—John Clark, an inmate of the Soldiers' Home, in Dodge City, is said to have been buried alive for two days. He had been ill with typhoid fever. The doctor in attendance pronounced him dead, and he was buried in the soldiers' cemetery with military honors.

Some of his comrades declared that they did not believe Clark was dead. One soldier, named Hazen, persisted that Clark had been buried alive, and demanded that his body be taken from the grave. The doctor was recalled and asked what he thought about the case.

After consultation it was decided to open the grave. When the coffin was opened it was seen that Clark's hands were not in their former position and there was moisture on the glass above his mouth. Stimulants and careful nursing turned the tide for Clark and death was robbed of its victim.

When Clark was finally restored to consciousness he said that he had been half conscious of all that had happened and knew that he had been buried alive.

He was buried on Wednesday and taken out on Friday.—*Boston Herald.*

At the time this article appeared we looked into the matter and found the story an evident fake. A physician of Dodge City, in fact, writing to us about the report, said:

"I have made diligent inquiry and find that the story is entirely untrue. Nothing of this character has ever occurred at the Soldiers' Home at this place."

On October 21 of last year the following appeared in the *Chicago Tribune* and other papers:

WOMAN'S BURIAL ALIVE PREVENTED JUST IN TIME

Ellis, Kan., Oct. 20.—The timely intervention of a physician who was not satisfied with the appearance of the body to day prevented the burial alive of Mrs. Thomas Chapman, wife of one of the best known citizens of this part of Kansas.

Mrs. Chapman, who is 60 years of age, was supposed to have died suddenly from heart disease on Saturday last. The body was prepared for burial but was not embalmed. The funeral was to have taken place this afternoon.

A few minutes before the casket was to be sealed a physician requested permission to see the body. After confirming his suspicions, the woman was removed from the coffin and placed in bed. While her heart is weak, it is believed Mrs. Chapman will recover.

On corresponding with the physician referred to in the news item, we received the following reply:

"On Saturday, October 17, I was called to see Mrs. Thomas Chapman. Examination revealed no signs of life, and naturally I pronounced her dead. On Tuesda[illegible] [illegible]ked to visit again the body, as some of the [illegible] death signs were not plain. In company wi[illegible] I returned and for the second time pronounced her dead. The funeral was delayed another twenty-four hours. There never were any signs of life in the body after she was first pronounced dead."

The following case illustrates a possible method of keeping up interest in the subject of premature burial. In the issue of *Our Dumb Animals* for February, 1909, this item appeared:

PREMATURE BURIAL

A prominent gentleman of Newport, R. I., sends us to-day from the *Newport Herald* an article of deep interest on this subject, describing how Mrs. Christina Hart, of 1131 St. Louis avenue, East St. Louis, was pronounced dead by her physicians and barely escaped being embalmed by the undertaker. She was entirely conscious during the whole trance of everything that was going on about her and of all that was said.

On making inquiries we found that no one of that name lived at the address given, and in following up the matter the editor of *Our Dumb Animals* was asked to give the date of the particular issue of the *Newport Herald* which contained the original account. It was then learned that though the article states that "A prominent gentleman . . . sends us *to-day*," etc., the facts were that the same article had appeared in the same magazine *nine years previously*. Any cause which requires the dishing up as current matter news items that are admitted to have been in cold storage for at least nine years, must be in a bad way!

From practical considerations alone the probability of premature burial is so remote as to be negligible. We have but to bear in mind the fact that the amount of air in the modern air-tight coffin would support life for but a few brief minutes at most, to realize that the stories of resuscitation occurring as the coffin is being placed in the grave are the sheerest of fiction. The very general employment of methods of embalmment also tends to make premature burial, if not impossible, at least highly improbable. Last, but not least, the most careless of physicians is not at all likely to pronounce a person dead without having assured himself of the fact. Yet we read in a pamphlet issued by a society for the prevention of premature burial the following intemperate statement:

If the present practice is to be continued, establish slot machines, where, by putting in a cent, a [death] certificate may be ground out. The certificate would be equally valuable and possess all the elements of intelligence and medical knowledge that the present certificates possess at a vast saving of salaries for medical examiners and medical certificates.

What grounds this society has for gratuitously insulting physicians by impugning their intelligence and medical knowledge and accusing them of incapacity or worse, it is impossible even to guess. If its statistics will bear no closer scrutiny than the few cases which we have investigated, the society probably believes in making up in invective what it lacks in testimony. Such methods are common in cases of organized hysteria. Quoting our British contemporary again: "The life of man is already surrounded by a sufficiency of trials and difficulties without adding gratuitous terrors to the list."

Clippings from Lay Exchanges

PECULIAR LAY MEDICAL TERMS

Gastrojegimostomy.—*Rhyolite* (Nev.) *Bullfrog Miner.*

Ankersteleal nephortis. This disease makes the internal conditions worse than Bright's disease.—*Fort Wayne* (Ind.) *Journal-Gazette.*

Ossification of the tissues of the bone.—*Philadelphia Evening Bulletin.*

Chronic intestinal nefritis.—*Salem* (Ind.) *Democrat.*

Structure of the bowels.—*Davenport* (Iowa) *Democrat and Leader.*

Earamyoclonus, a form of nervous prostration.—*Fort Wayne* (Ind.) *Sentinel.*

Scurvy, a sort of bleeding at the lungs.—*La Junta* (Col.) *Democrat.*

MODERATE OR MODEST

———— Optical Co., —— Buttercup St. Eye examinations free. Ability, Quality and prices moderate.—*Philadelphia Press.*

"AS WELL AS COULD BE EXPECTED"!

Dr. ———— performed two surgical operations last week and both patients are doing as well as could be expected.—*Clay Center* (Kan.) *Dispatch.*

STEAMING THE BLOOD, A NEW CURE FOR PRURIENCY

Berlin.—The Kaiser has given the highest medical post in Berlin . . . to Prof. A.——— B———, . . . the inventor of two valuable surgical processes—the artificial steaming of the circulation of the blood as a cure for purulent abscesses, and the injection of anæsthetics into the spinal marrow, which is used for rendering the lower part of the body unconscious.—*Los Angeles* (Cal.) *Examiner.*

Russian Researches in Metabolism.—Of recent years the activity of Russian investigators in problems of animal nutrition and metabolism have been to a great measure overlooked. Dr. Francis G. Benedict of the Nutrition Laboratory of the Carnegie Institute of Washington, has recognized these Russian researches as among the best (*Science*, March 5, 1909.) For this reason and on account of the comparative inaccessibility of Russian literature to American scientists, he has made arrangements with Professor Lihachev, whereby all articles in Russian dealing with problems of metabolism are to be sent to the nutrition laboratory for translation into English. Manifolded copies of these translations will be deposited in the library of the laboratory. Dr. Benedict promises that titles and short abstracts of the articles will be published from time to time in some scientific journal. In their digest of metabolism experiments Atwater and Langworthy (*U. S. Dept. of Agric., Bull. 45, Office of Exper. Stations*) review the Russian literature up to that date. Among the more recent the following excellent articles have appeared in Russian. "Investigations of Gas and Heat Exchange in Fevers," "Production of Heat by Healthy Man in a Condition of Comparative Rest," "The Influence of Alcohol on the Heat and Gas Exchange in Man," and "Metabolism During Fasting." Of Pashutin's treatise on experimental pathology the entire section (some 800 pages) has been translated. Bound typewritten copies are deposited in the Surgeon-General's library in Washington, the New York Public Library, and in the John Crerar Library of Chicago.

The Mechanical and Physiologic Effects of an Excessive Dilatation and Elongation of the Colon. Dr. A. Campbell Geddes (*Jour. Anat. and Physiol.*, 1909, xliii, 182) describes with several good illustrations the effects of marked dilatation and elongation of the cecum, ascending colon and transverse colon on the abdominal and thoracic viscera and on the organism in general. Reference is made also to the effects of a similar condition in the transverse and descending parts of the colon, described by Professor Howden. The observations which were made in the anatomic laboratory of the University of Edinburgh show instances of remarkable dilatation. A maximum diameter of 220 mm. for the cecum, 280 mm. for the ascending colon and 170 mm. for the transverse colon, with a combined increase in length of over 100 per cent for these three portions of the intestine are recorded. From his dissections, Dr. Geddes concludes there may be attributed to an excessive dilatation and elongation of the cecum, ascending and transverse parts of the colon the following effects: displacement of the heart to the left, backward displacement of the left lung, a shortening of the right lung, a translation and rotation of the liver, direct distortion of the stomach, indirect distortion and downward displacement of the right kidney, a partial functional obliteration of the abdominal venous cistern (inferior vena cava and abdominal veins), the establishment indirectly of a condition of general extra-abdominal congestion and indirectly a hypertrophy of the heart.

The Temperature in the Human Stomach.—Dodo Rancken and R. Tigerstedt, in *Skandin. Arch. f. Physiol.*, xxi, 80, record the temperature of the stomach, taken every four minutes for eighteen hours in the case of a woman of 62 years, with a stomach fistula. At the same time the temperature of the rectum was taken. Each series of temperature readings is graphically plotted in curves showing hourly and half hourly averages. The stomach and rectal temperatures ran in general parallel, the former showing an average of 0.09 C. higher than the latter. Only on taking food of a lower temperature than that of the body did the temperature of the stomach sink below that of the rectum. The close similarity of the two curves and the fact that the maximal difference between them occurred twelve hours after taking food, are taken to indicate that during stomach digestion no perceptible increase in the temperature of the organ is experienced. It is probable that the surrounding viscera, especially the liver, may account for a higher temperature in the stomach than in the rectum.

Baths of Tiberias.—According to Consul General G. Bie Ravndal of Beirut (Monthly Consular and Trade Reports, March, 1909), there is good opportunity for development, under American or European management, of a health resort near the hot springs of Tiberias in Palestine, which may rival Carlsbad. These springs have been noted for their healing properties since Roman times. The temperature is about 143 F. and the waters contain sulphur, magnesium chlorid and iron. Baths have been provided by the Turkish government, but the accommodations are inferior and lack cleanliness. In Galilee the climate is delightful in the spring and the season lasts from February to May. A resort offering such baths and such historic associations would seem to have a bright future.

Provision for Public Care of Epileptics.—An instructive little booklet on epilepsy entitled "Public Care and Treatment for the Epileptic" has been prepared by Dr. J. F. Munson, secretary-treasurer of the National Association for the Study of Epilepsy, and Mr. William C. Graves, executive secretary of the Illinois State Board of Commissioners in Charity. It is designed for the layman and gives the reasons for public care of epileptics, the superiority of colony to hospital care and a list of the states which have already provided institutions of this character. Unfortunately, the list is not a long one, only nine states being named as having established separate institutions for epileptics. The booklet ought to have a strong influence in stimulating legislators to make adequate provision for these people, who are unfortunate and disabled through no fault of their own.

Typhoid Fever and Venereal Disease in the British Army in India.—Among the points brought out in the Annual Report of the Sanitary Commissioner with the Government of India for 1907, one or two in connection with typhoid fever are of general as well as of local interest. A very conclusive instance of the bacillus carrier is reported as follows:

"During August, 1907, five cases of enteric fever occurred in the detachment of the Bedfordshire regiment stationed at Kasauli. All the patients contracted the disease about the same time. They lived in different rooms and the only conditions common to all were the food supply and the latrine accommodation. The source of infection remained undiscovered until a bacteriologic examination of the excreta of all the cooks and 'contacts' in the detachment (42 in all) was made. The investigation proved that a cook of the detachment, who was apparently in perfect health, was excreting the typhoid bacillus in enormous numbers in his feces. The man was isolated and no further case occurred in the detachment. It was probable that he had been a typhoid bacillus-carrier for nearly ten years."

The committee of investigation also found that soldiers employed as nurses to typhoid patients may become bacillus-carriers without themselves being attacked by the disease. This was found to be the case with regard to three out of five nursing orderlies whose histories are recorded in the report.

Another observation which the report thinks has not had sufficient importance attached to it in general, except perhaps in India, is the danger of infection by contact during the very early stages of typhoid fever. In the tendency which there is at the present time to attribute the origin of so many cases of typhoid to the agency of convalescents and chronic bacillus carriers, there is perhaps a danger that the importance of the infectiousness of patients in the early stages of the disease may be overlooked.

It is noteworthy that the hospital admissions for alcoholism and venereal diseases in the British troops show a considerable fall over 1906. Among the contributory causes of this fall are the official efforts to occupy the spare time of the men in healthy pastimes, to make the regimental institutes attractive and comfortable, as well as a better education and a higher moral tone among soldiers generally. The decline extends also through the native troops. The indication of the decline in syphilis among European troops is shown by the "syphilis register," which contains the names of all men who come under treatment for syphilis for the first time. It was started in 1904, and 2,947 men were entered. In 1905 there were 1,470; in 1906 there were 936; and in 1907 only 797 entered. Every man whose name is on this register has to attend hospital once a week for observation and treatment during a period of two years, and the continuous improvement and results of treatment are shown by the steady decrease in the proportion of cases requiring readmission to hospital while under observation.

State Dependency and Criminality.—In 1908 a commission was appointed in New Jersey to investigate the causes of dependency and criminality. That commission, finding it impossible to cover the entire field in the short time allotted, has recently issued a partial report, for a copy of which we are indebted to Dr. Charles A. Rosenwasser, chairman. The report contains some interesting suggestions, which, though naturally directed to the State of New Jersey, nevertheless bear on problems that exist in most of the states, and are therefore worthy of consideration. The commission recommends the abolition of all state boards of managers and the substitution in their place of a commissioner of charities, who should be a specialist in all phases of work in the institutions of the state, and who should work subject to a board of charities and corrections. The report strongly recommends the unification, with centralization of authority, control, and management, of all state institutions The system of detaining in the county jail in close contact with criminals those who are merely accused or desired as witnesses, and also juvenile and first offenders, is properly and strongly condemned. The abolition of the Sunday restriction on sports and games, a relic of "harsh laws made to fit other times, other peoples, and other conditions," is urged. The disposition of the insane receives careful consideration. A law is recommended to provide for the voluntary commitment of the insane, on the ground that such a law would render it possible to get patients under treatment in the early stages of insanity. There can be little doubt that, as in other diseases, so in insanity, early treatment leads to more cures. Owing to the conflicts that occur between portions of laws enacted at different times and under different circumstances, the commission recommends a repeal of all the laws dealing with insanity from 1846 to date, and the enactment of one comprehensive law to embrace all features necessary to cover requirements in the commitment, detention and discharge of the insane. Other points of general interest considered in the report are the recommendation of a hospital for inebriates to replace the barbarous system of punishment, restriction of marriage in the case of persons physically or otherwise unfitted to marry, the education of the public in matters of health, especially sexual hygiene, the prevention of ophthalmia neonatorum, and records of the sale of dangerous weapons A mode of equalizing the distribution of insane patients according to available accommodation in the various hospitals, is suggested The report further discusses women's reformatories, state homes for boys, the harmfulness of dead letter laws, the medical examination of prisoners (in the absence of which tuberculosis and other transmissible diseases may be spread), the separation of juvenile prisoners from adults and of male from female inmates in institutions The report is one which shows good work and in the main inculcates sound principles

The New Jersey Campaign Against Mosquitoes.—Prof John B. Smith, in his report to the governor on the work carried on under the former's direction, for the two years ending with the summer of 1908, discusses the problems encountered by the state of New Jersey in its attempt to exterminate the mosquito. It is his opinion that this pest can be practically exterminated if the campaign is continued. Drainage of 20,292 acres of salt marsh has been accomplished by 2,723,974 feet of ditching at an actual cost of $44,058. Considerable money was also expended by municipalities throughout the state, which cooperated with the mosquito commission in its crusade. Breeding places were eliminated. Broods of wigglers in pools were destroyed with oil. In those localities where the marshes were well drained during or before 1907, the migrating marsh mosquitoes were practically absent during 1908 It has been found that the eggs of the species that are typical of these salt marshes are capable of hatching at least three years after a marsh is drained. Particular attention was also directed to water barrels, catch-basins, cisterns, etc., in the larger towns It is hoped that the legislature will extend the appropriation so that the crusade may be continued.

Economic Aspects of Animal Tuberculosis.—When a disease can be shown to inflict commercial loss its control or eradication is generally assured. According to a recent report of the Bureau of Animal Industry the meat inspection figures show that tuberculosis among live stock is increasing steadily and that nearly 1 per cent of cattle and over 2 per cent. of hogs slaughtered are tuberculous, which is surely an alarming condition Experiments indicate that hogs can be infected through the ingestion of feces and milk from tuberculous cows. There is, therefore, no doubt that the prevalence of the disease in hogs could be greatly reduced simply by eradicating it from cattle The prevalence of the disease is further shown by results of the testing of dairy herds in Washington, D C, and elsewhere. Tuberculin tests made in various states warrant the estimate that in the country at large at least 10 per cent of the cows in dairy herds are tuberculous The results of tests showed that in some of the pure-bred herds nearly 50 per cent. of the animals were diseased and in consequence sales were lost. This loss is inducing some buyers of breeding cattle to insist on having pure bred animals tested before placing them in their herds. When this practice becomes general the breeder of strictly healthy cattle will be much sought after. The avoidance of loss due to the condemnation of a valuable animal on account of disease would compensate for the necessary expense of inspection and other means of prevention. Sooner or later the man who raises tuberculous animals must suffer the loss, unless the loss is paid for out of public funds; and when the loss is placed on the producer we may then know that the end of the disease is in sight.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

DELAWARE Dover and Wilmington, June 15 17. Sec, Dr Henry W Briggs, Wilmington

FLORIDA ECLECTIC DeFuniak Springs, June 10 Sec, Dr. Hiram J Hampton, Tampa

ILLINOIS Coliseum Annex, Chicago, June 16 18 Sec, Dr J A. Egan, Springfield

IOWA Des Moines, June 22 24; Iowa City, June 8-10. Sec, Dr. Louis A Thomas, Des Moines

KANSAS Kansas City, June 10 Sec, Dr R A Light, Chanute

MARYLAND Baltimore, June 15-18 Sec, Dr J. M Scott, Hagerstown. Homeopathic: Baltimore, June 15 17 Sec, Dr Joseph S. Garrison, 848 W North Ave.

MICHIGAN Ann Arbor, June 8 Sec, Dr B. D Harison, 504 Washington Arcade, Detroit

MINNESOTA Minneapolis, June 15 Sec, Dr W. S Fullerton, St Paul

NEW JERSEY State House, Trenton, June 15 16 Sec, Dr J W Bennett Long Branch

NEW YORK Albany, June 22 25 Chief of Examinations Division, Dr Charles F Wheelock, Albany

NORTH CAROLINA Asheville, June 9 Sec, Dr. B K Hays, Oxford

OHIO Columbus, June 8 10. Sec, Dr George H Matson, State House, Columbus

PENNSYLVANIA Philadelphia and Pittsburg, June 22 25 Sec, Mr. Nathan C. Schaeffer, Harrisburg.

South Carolina: Columbia, June 8-10. Sec., Dr. H. H. Wyman, Aiken.
Texas: Cleburne, June 22-24. Sec., Dr. M. E. Daniel, Honey Grove.
Virginia: Richmond, June 22-25. Sec., Dr. R. S. Martin, Stuart.
Wyoming: Laramie, June 23-25. Sec., Dr. S. B. Miller.

Nebraska College of Medicine Closes Voluntarily

Recognizing the rapidly increasing demands of medical education and the impossibility of its meeting these demands with the means at its disposal, the Nebraska College of Medicine has voluntarily closed its doors. This action was taken by the faculty at a meeting held May 19th. In an open letter to the president of the Nebraska Wesleyan University, with which the medical school was affiliated, Dr. J. F. Stevens, dean of the medical college, sets forth the reasons leading to the action taken. After giving a brief history of the opening and progress of the medical school, Dr. Stevens continues:

"We would respectfully call your attention to the fact that educators and physicians throughout the United States, recognizing the inferiority, on the whole, of the American medical school, as compared with those of Europe, have determined to raise the standard of medical education to such a point that our colleges will command the respect of the world. While academic training and opportunity have grown into magnificent and commanding proportions, the professional schools, with the exception of a small minority, have remained essentially elementary or even worse. The spirit of progress has at last become supreme and on all sides may be seen the work of destruction, re-organization, and rebuilding. The American Medical Association is doing a splendid work in securing and digesting statistics, and reflecting the strengths and deficiencies of our institutions. The Carnegie Foundation, in a different manner, lends its words of wisdom, and a multitude of smaller bodies and societies, including state examining boards, are working together with hardly a discordant note, for the same purpose. Standards of entrance requirements have been raised to such a point that one full year's work in an accepted college or university is required for matriculation. Soon it will be two years, and later a bachelor's degree will, without doubt, be the *sine qua non*. Small colleges that have found it impossible to stand the strain of such requirements have been forced either to step from the field altogether, or to merge with some other school. In several states nearly, or quite all, of the small schools have been blended with the state institution. At the same time the requirement is going forth that schools shall have at their disposal a dispensary and hospitals sufficiently patronized to permit of a very wide study of disease. These requirements can not be met in a small city. Again, with the rapid advancement in medicine has come the need of costly laboratories, under the direction of highly cultured men. Subjects, too, that once belonged to the 'mere mention' hour in the course of study, have developed into great fields with divisions and subdivisions, each demanding a special training for its comprehension and most certainly for its proper teaching. None of these requirements insisted on by educators and the medical profession generally is in excess of what it should be, and this institution is in full harmony with that view. . . . We fully realize that to maintain our standing and dignity as medical teachers, in the continuance of our college, it will be necessary to add to our working force a goodly number of trained instructors. This we can not do, and because of this, and for the reasons easily deduced from the above discussion, it has been decided best for our institution to voluntarily close our doors, in the interest of higher medical education."

The action taken by the faculty of this college is but another evidence that medical educators themselves realize the desirability that medical teaching in America be improved until it is at least on the same high plane held in other leading countries, and that they are willing to make great sacrifices, if need be, to attain that end. It is this spirit so frequently manifested by our medical educators, which is an inspiration to those working for better standards and which is sure to bring results.

AMERICAN CONFEDERATION OF RECIPROCATING, EXAMINING AND LICENSING MEDICAL BOARDS

Annual Meeting, held at Louisville, Ky., May 12, 1909

The annual meeting of the American Confederation of Reciprocating, Examining and Licensing Medical Boards was held at Louisville, Ky., May 12, under the presidency of Dr. W. A. Spurgeon of Muncie, Ind., who is president of the Indiana State Board of Medical Registration and Examination, the secretary-treasurer being Dr. B. D. Harison, 504 Washington Arcade, Detroit, who is secretary of the Michigan State Board of Registration in Medicine. While the attendance was not so large as usual, owing to the fact that at this season medical colleges are holding or preparing to hold examinations, and medical boards are either conducting examinations or preparing to do so, a comparatively large number of state boards and medical colleges were represented. The local profession of Louisville was largely represented at the meeting, and also at the luncheon given to the delegates by Dean Evans of the Medical Department of the University of Louisville, at the Pendennis Club.

Dr. Joseph M. Mathews, president of the Kentucky State Board of Health, gave an interesting address on "Preliminary Requirements," and advocated conservatism in medical boards adopting higher standards, suggesting that the present standard should be absolutely obtained prior to any such advancement.

The presidential address was delivered by Dr. Spurgeon of Indiana and the secretary's report by Dr. Harison of Michigan. The latter showed 827 licenses reported endorsed by the several reciprocating states in 1908, with eight states failing to report. Additional states reciprocating are, Texas, Oklahoma, Louisiana and New Hampshire. Information was also received by the secretary from the Board of Medical Examiners of Oregon, to the effect that this board would enter the reciprocating field in a short time, and that Washington and Idaho were also seriously considering medical reciprocity in the near future.

Article II of the constitution of the confederation was amended. It formerly read:

The object of this confederation shall be to establish reciprocal relations between the medical examining and licensing boards of the states, territories, districts and provinces of the United States; the purpose of which being that thoroughly worthy and well qualified physicians and surgeons who have been legally authorized to practice under the laws of one of said states, territories, districts or provinces, may be given legal authority and be admitted to practice in any state, territory, district or province represented in this confederation without a repetition of the tests of qualification to which such practitioner has submitted.

The amendment added the following:

"This confederation shall also adopt, from time to time, suggestive standards of preliminary and medical education. It shall also suggest methods of making practical the reciprocal endorsement of licenses."

Detail of Academic (Secondary) Work and Examination

The following detail of academic value of a high school diploma was adopted:

REQUIRED GROUP

Minimum 40 Counts. (Total of 60 Counts.)

	Credits Accepted. Minimum Counts.	Maximum Counts.
English	10	15
Mathematics	10	20
Latin	5	5
Physics	5	15
History		
Totals	40	75

ELECTIVE GROUP

Maximum 20 Counts

Greek	8	10
French	8	10
Spanish	8	10
German	8	10
Chemistry	4	5
Botany	2	5
Zoology	2	5
Biology (see Note 5)	4	5
[illegible] and Hygiene	2	5
(see Note 3)	4	5
Note 3)	2	2
Solid Geometry	2	2
Physical Geography	2	5
Drawing	2	5
Astronomy	4	5
Geology	4	5
Total elective		35

Instructions

1. As used in this table, a count is the measure of the work successfully completed in a secondary or high school pursued an entire

school year of 36 weeks in one weekly recitation period of not less than forty-five minutes.

2. The required group, 40 counts, must be presented by all applicants. Sufficient counts to make a total of 60 counts required may be selected from the elective group. The credit which will be accepted in the several studies is shown by the printed figures.

3. English literature of the elective group may not be counted unless a year has been given to that subject in addition to the required ten counts in English, and trigonometry may not be counted unless it is in addition to the required ten counts in mathematics.

4. Civics is not accepted as a subject, but may be counted as a part of American history.

5. Biology is the equivalent of botany and zoology, and it can be given no credit if an applicant is credited with botany or zoology.

6. The scope of the course is recorded under minimum standard of preliminary education.

The scope of such diploma was passed at the 1908 meeting.

The committee having in charge the medical curriculum was continued and instructed to report at the next meeting.

The officers of the previous year were re-elected.

Arizona April Report

Dr. Ancil Martin, secretary of the Arizona Board of Medical Examiners, reports the written examination held at Phoenix, April 5-6, 1909. The number of subjects examined in was 9; total number of questions asked, 90; percentage required to pass, 75. The total number of candidates examined was 7, of whom 5 passed and 2 failed. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
Northwestern University Medical School	(1903)	83.
College of Physicians and Surgeons, Baltimore	(1883)	78.2
Medical College of Ohio	(1883)	75.6
Western Reserve University	(1903)	86.3
Jefferson Medical College	(1883)	81.2
FAILED		
Jefferson Medical College	(1885)	72.9
Chattanooga Medical College	(1908)	72.5

California April Report

Dr. Charles L. Tisdale, secretary of the Board of Medical Examiners of the State of California, reports the written examination held at San Francisco, April 6-8, 1909. The number of subjects examined in was 10; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 67, of whom 44 passed and 23 failed. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
College of Physicians and Surgeons, San Francisco,	(1902)	75.2; (1906) 75.7, 76.6, 78.2, 80.5; (1907) 75, 76.2; (1908) 81.7, 82.1.
University of California	(1908)	78.6, 79.9, 80.8, 89.1
College of Physicians and Surgeons, Los Angeles	(1908)	75.
University of Southern California,	(1904)	75; (1906) 80.5; (1907) 75, 80.7; (1908) 75, 78.5.
Hahnemann Medical College of the Pacific	(1908)	76.5
California Medical College, Eclectic	(1906)	78.
Cooper Medical College	(1905)	76; (1907) 79; (1908) 75.
Yale Medical School	(1904)	86.4
Dunham Medical College	(1902)	75.
Northwestern University Medical School	(1899)	77.
Rush Medical College	(1909)	90.9
Medical College of Indiana	(1898)	81.3
University of Iowa	(1892)	82.1
Kentucky School of Medicine	(1893)	85.8
Tulane University of Louisiana	(1908)	75.1
Harvard Medical School	(1899)	83.5; (1907) 81.4
University of Minnesota	(1896)	82.4
St. Louis College of Physicians and Surgeons	(1908)	75.6
Washington University	(1907)	87.4
Marion Sims College of Medicine	(1898)	80.3
Columbia University, College of Phys. and Surg.	(1907)	83.6
Woman's Medical College of Pennsylvania	(1908)	84.2
University of Vermont	(1900)	78; (1907) 75.
University of Toronto, Ontario	(1906)	87.
FAILED		
University of Southern California	(1908)	72.4
Hahnemann Medical College of the Pacific	(1908)	72.3
College of Physicians and Surgeons, San Francisco,	(1906)	45.5, 72.3, (1907) 70, 72.1.
College of Physicians and Surgeons, Los Angeles	(1908)	28, 52.
Hahnemann Medical College and Hospital, Chicago,	(1886)	75.8* (1898) 70.5.
College of Physicians and Surgeons, Chicago	(1902)	73.4
University of Iowa	(1890)	69.9
Kentucky School of Medicine	(1889)	65.2
Baltimore Medical College	(1908)	62.
Harvard Medical School	(1898)	69.3
University of Michigan	(1902)	70.8
University of Michigan, Homeopathic College	(1892)	66.
Washington University	(1901)	73.6
Creighton Medical College	(1904)	70.
University of Oregon	(1908)	73.8
Jefferson Medical College	(1894)	66.6; (1895) 56.2
University of Vermont	(1907)	73.4

* Five per cent. added for each ten years of practice.

Wisconsin April Report

Dr. J. V. Stevens, secretary of the Wisconsin Board of Medical Examiners, reports the written examination held at Madison, April 13, 1909. The number of subjects examined in was 21; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 3, all of whom passed. Twenty-three reciprocal licenses were issued at this examination. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
College of Physicians and Surgeons, Chicago	(1902)	79, 84.
Milwaukee Medical College	(1904)	79.

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Denver and Gross College of Medicine	(1903)	Iowa
Northwestern University Med. School	(1907) (2, 1908)	Illinois
Rush Med. Coll.	(1880)	Minnesota; (2, 1907) (1908) Illinois
Illinois Medical College	(1905) (1908)	Illinois
College of Physicians and Surgeons, Chicago,	(1907)	Minnesota; (3, 1908) Illinois.
Bennett Coll. of Eclectic Med. and Surg.	(2, 1908)	Illinois
Hahnemann Med. Coll. and Hosp., Chicago,	(1907) (1908)	Illinois
College of Medicine and Surgery, Chicago	(1907)	Illinois
Tulane University of Louisiana	(1906)	Louisiana
Ohio Medical University	(1898)	Ohio
New York Med. Coll. and Hospital for Women,	(1887)	Illinois
Queen's University, Ontario	(1903)	Minnesota

Colorado April Report

Dr. S. D. Van Meter, secretary of the Colorado State Board of Medical Examiners, reports the written and oral examination held at Denver, April 6-10, 1909. The number of subjects examined in was 8; total number of questions asked, 80; percentage required to pass, 75. Twelve applicants were examined, of whom 7 passed and 5 failed. Thirty-seven candidates were registered on presentation of satisfactory credentials, including state licenses. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
Denver and Gross College of Medicine	(1908)	78.5, 79.
Baltimore Medical College	(1908)	76.
Johns Hopkins Medical School	(1908)	85.4
University of Maryland	(1904)	76.7
University of Michigan	(1903)	79.5
McGill University, Canada	(1908)	90.
FAILED		
Denver College of Physicians and Surgeons	(1908)	72.9
Chicago College of Medicine and Surgery	(1903)	72.3
Kentucky School of Medicine	(1906)	62.7
University Medical College, Kansas City	(1908)	69.5
Lincoln Medical College	(1908)	65.5

REGISTERED ON CREDENTIALS

College	Grad.	Licenses
Rush Medical College	(1895)	Oklahoma; (1897) Idaho
Denver and Gross College of Medicine	(1907)	New Mexico
Chicago Homeopathic Medical College	(1889)	Iowa
Chicago College of Medicine and Surgery	(1908)	Illinois
College of Physicians and Surgeons, Chicago	(1899)	Illinois
Northwestern Univ. Med. School,	(1899)	Texas; (1907) Illinois
University of Iowa	(1881)	Iowa; (1902) Minnesota
Keokuk Medical College	(1891)	Iowa
University of Louisville	(1884)	Tennessee; (1893) Florida
College of Physicians and Surgeons, Baltimore	(1889)	Arizona
Johns Hopkins Medical School	(1906)	New York
Michigan College of Medicine and Surgery	(1892)	Michigan
University of Michigan,	(1873)	Illinois; (1891) (1899) Michigan; (1897) New Mexico.
Northwestern Medical College, St. Joseph	(1892)	Nebraska
Washington University	(1908)	Missouri
Missouri Medical College	(1878)	S. Dakota
University Medical College, Kansas City	(1897)	Kansas
Beaumont Hospital Medical College	(1888)	Nebraska
Creighton Medical College	(1907)	Iowa
Bellevue Hospital Medical College,	(1896)	Ohio; (1895) R. Island
Long Island College Hospital,	(1876)	Iowa; (1895) (1905) (1907) New York.
Columbus Medical College	(1883)	Ohio
University of Wooster, Cleveland	(1881)	New York
Western Reserve University	(1870)	Ohio
University of Pennsylvania	(1904)	Wisconsin
Trinity University, Ontario	(1897)	Indiana

Maine March Report

Dr. Frank W. Searle, secretary of the Maine Board of Registration of Medicine, reports the written examination

held at Portland, March 9-10, 1909. The number of subjects examined in was 10; total number of questions asked, 95; percentage required to pass, 75. The total number of candidates examined was 12, of whom 7 passed and 5 failed. Six applicants were granted reciprocal licenses. The following colleges were represented:

PASSED College	Year Grad.	Per Cent.
Georgetown University, Washington	(1908)	84.7
Medical School of Maine	(1892) 89.5; (1908)	75.9
Tufts College Medical School	(1907)	87.4, 82.8
College of Physicians and Surgeons, Boston	(1908)	83, 86.

FAILED		
Medical School of Maine	(1908)	78.7
Baltimore Medical College	(1905) 73.4; (1906)	68.9
Coll. of Phys. and Surg., Boston	(1901) 73.3; (1908)	67.6

LICENSED THROUGH RECIPROCITY College	Year Grad.	Reciprocity with
Medical School of Maine	(1888)	New Hamp.
Baltimore University	(1898)	New Hamp.
Johns Hopkins Medical School	(1904)	Dist. Colum.
Dartmouth Medical School	(1904)	Vermont
New York Homeopathic College and Hospital	(1899)	Michigan
University of Vermont	*(1907)*	Vermont

Massachusetts March Report

Dr. Edwin B. Harvey, secretary of the Board of Registration in Medicine, reports the written and practical examination held at Boston, March 9-11, 1909. The number of subjects examined in was 13; total number of questions asked, 70; percentage required to pass, 75. The total number of candidates examined was 62, of whom 33 passed, including 1 *non-graduate and 25 failed, including 8 non-graduates.* The following colleges were represented:

PASSED College	Year Grad.	Per Cent.
Hahnemann Medical Coll. and Hospital, Chicago	(1908)	77.2, 79.6
College of Physicians and Surgeons, Baltimore	(1908)	79.2
Baltimore Medical College	(1905) 79.3; (1908)	75.8
Boston University	(1900) 76.2; (1906) 75.8; (1908)	75.9
Tufts College Medical School	(1907) 75.3, 79.2; (1908)	75, 75, 75.5, 76.3, 77.7, 81.7.
Harvard Medical School	(1906) 75; (1907) 75.1, 75.2, 77.2, 79, 81.7; (1908) 80.5, 80.8.	
Columbia University, College of Phys. and Surg.	(1893)	75.5
Medico-Chirurgical College, Philadelphia	(1908)	77.5
University of Pennsylvania	(1888) 77.6; (1906)	78.
Jefferson Medical College	(1904)	78.5
McGill University, Quebec	(1907)	79.
University of Naples, Italy	(1890)	75.
University of Leipzig, Germany	(1901)	78.5

FAILED		
Howard University, Washington	(1907)	66.7, 69.9
Maryland Medical College	(1908)	62.7
Baltimore Medical College	(1908) 68.1, 69.4, 70.2, 70.8,	72.
College of Physicians and Surgeons, Boston	(1908) 52.1, 54.1,	55.2
Long Island College Hospital	(1899)	59.8
University of the South	(1901)	65.
University College of Medicine, Richmond	(1907)	68.6
Laval University, Quebec	(1905)	48.6
University of Naples, Italy	(1900) 70.5; (1906)	65.

Minnesota April Report

Dr. W. S. Fullerton, secretary of the Minnesota State Board of Medical Examiners, reports the written examination held at St. Paul, April 6-9, 1909. The number of subjects examined in was 11; total number of questions asked, 105; percentage required to pass, 75. The total number of candidates examined was 10, of whom 4 passed and 6 failed. Twenty-one reciprocal licenses were issued at this examination. The following colleges were represented:

PASSED College	Year Grad.	Per Cent.
University of Minnesota	(1908)	76, 76, 76.7, 79.4

FAILED		
Bennett College of Eclectic Medicine and Surgery,	(1900)	57.5
Louisville and Hospital Medical College	(1908)	54.7
Hamline University,	(1904) 63.8; (1907) 63.6, 68.6; (1908)	60.9

LICENSED THROUGH RECIPROCITY College	Year Grad.	Reciprocity with
Northwestern University Medical School,	(1906) (1907)	Illinois
Hahnemann Medical Coll. and Hosp. Chicago,	(1905)	Illinois
College of Physicians and Surgeons, Chicago	(1902)	Missouri
Chicago College of Medicine and Surgery,	(1908)	Illinois; (1908) Wisconsin.
Indiana University	(1908)	Indiana
University of Iowa	(1904) (1907)	Iowa
Baltimore Medical College	(1893)	Maine
College of Physicians and Surgeons, Baltimore,	(1896)	Illinois
University of Minnesota	(1906)	N. Dakota
St. Louis University	(1907)	Illinois
College of Physicians and Surgeons, Kansas City,	(1896)	Iowa
Kansas City Hahnemann Medical College	(1906)	Kansas
University of Buffalo	(1898)	Michigan
Miami Medical College	(1889)	Indiana
Medico-Chirurgical College, Philadelphia	(1906)	New Jersey
Milwaukee Medical College	(1904)	Wisconsin
McGill University, Quebec	(1887)	Wisconsin
University of Christiania, Norway	(1894)	Wisconsin

Montana April Report

Dr. William C. Riddell, secretary of the Board of Medical Examiners of Montana, reports the written examination held at Helena, April 6-8, 1909. The number of subjects examined in was 10; total number of questions asked, 50; percentage required to pass, 75. The total number of candidates examined was 41, of whom 34 passed and 7 failed. The following colleges were represented:

PASSED College	Year Grad.	Per Cent.
Columbian University, Washington	(1904)	87.3
Bennett College of Eclectic Medicine and Surgery,	(1879)	75.4
Illinois Medical College	(1908)	84.4
Rush Medical College	*(1886) 78.3;* (1904)	85
Northwestern Univ. Med. School	(1906) 90; (1907)	85.
College of Phys. and Surg., Chicago	(1907) 75; (1908)	84.
Tulane University of Louisiana	(1906) 82.9; (1908)	76.4
University of Michigan	(1895) 75; (1907) 80.4; (1908)	82.9, 85
Harvard Medical School	(1907)	76.6
University of Minnesota	(1896)	78.
Hamline University, Minneapolis	(1899) 79.3; (1902)	80.1
College of Phys. and Surg., Kansas City	(1902)	75.1
Kansas City Medical College	(1891)	80.7
University Medical College, Kansas City	(1905)	77.7
Creighton Medical College	(1908)	75.7
Columbia University, Coll. of Phys. and Surg.	(1903)	80.
Bellevue Hospital Medical College	*(1887)*	*76.*
University of Pennsylvania	(1893)	76.6
Western Pennsylvania Medical College	(1903)	79.4
University of Vermont	(1895)	80.3
Wisconsin College of Physicians and Surgeons	(1905)	78.4
University of Toronto, Ontario	(1908)	77.8
University of Vienna, Austria	(1897)	78.
University of Turin, Italy	*(1899)*	79.1
McGill University, Quebec	(1908)	85, 90.

FAILED		
Illinois Medical College	(1900)	68.0
University of Iowa	(1899)	72.7
Bennett College of Eclectic Medicine and Surgery	(1892)	69.2
Barnes Medical College	(1897)	68.3
Marion Sims College of Medicine	(1895)	67.9
Washington University, St. Louis	(1904)	73.4
Jefferson Medical College	(1907)	71.4

North Dakota April Report

Dr. H. M. Wheeler, secretary of the North Dakota State Medical Examining Board, reports the written examination held at Grand Forks, April 6-8, 1909. The number of subjects examined in was 14; total number of questions asked, 85; percentage required to pass, 75. The total number of candidates examined was 8, of whom 6 passed and 2 failed. Nine reciprocal licenses were issued at this examination. The following colleges were represented:

PASSED College	Year Grad.	Per Cent.
George Washington University	(1907)	88.
Rush Medical College	(1908)	88.
Northwestern University Medical School	(1908)	85.
University of Iowa, College of Medicine	(1905)	82.
Hamline University	(1904) 75; (1907)	75.

FAILED		
Sioux City College of Medicine	(1906)	71.
Victoria University, Ontario	(1883)*	

LICENSED THROUGH RECIPROCITY College	Year Grad.	Reciprocity with
Northwestern University Medical School	(1906) (1907)	Illinois
Illinois Medical College	(1905)	Illinois
College of Phys. and Surg., Chicago	(1906) (1908)	Illinois
Bennett College of Eclectic Med. and Surg.	(1907)	Illinois
Hamline University, Minneapolis	(2, 1908)	Minnesota
Albany Medical College	(1906)	New Hamp.

* Percentage not given.

Nevada May Report

Dr. S. L. Lee, secretary of the Nevada State Board of Medical Examiners, reports the written examination held at Carson City, May 3-4, 1909. The number of subjects examined in was 10; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 7, all of whom passed. Seven reciprocal licenses were issued. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
College of Phys. and Surg., Los Angeles	(1908)	86.
College of Phys. and Surg., San Francisco	(1908)	81.3
George " " "	(1908)	91.6
Rush "	(1902)	84.9
Keoku " Phys. and Surg.	(1908)	88.5
Univer " ansas City	(1906)	84.8
Willar	(1906)	81.7

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Northwestern University Medical School	(1894)	Wisconsin
College of Physicians and Surgeons, Chicago	(1903)	Illinois
Dearborn Medical College	(1905)	Illinois
College of Physicians and Surgeons, Keokuk	(1888)	Iowa
Omaha Medical College	(1894)	Nebraska
Medico-Chirurgical College, Philadelphia	(1900)	Nebraska
Western University, London, Ontario	(1899)	Nebraska

Rhode Island April Report

Dr. Gardner T. Swarts, secretary of the Rhode Island State Board of Health, reports the written examination held at Providence, April 1-2, 1909. The number of subjects examined in was 7; total number of questions asked, 70; percentage required to pass, 80. The total number of candidates examined was 7, of whom 4 passed and 3 failed. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Tufts College Medical School	(1908)	80.6
Dartmouth Medical School	(1907)	84.7
Laval University, Quebec	(1895)	82.9
McGill University, Quebec	(1908)	81.1

FAILED

Baltimore Medical College	(1905) 72.5;	(1908)	74.1
Laval University, Quebec		(1895)	64.

Utah April Report

Dr. G. F. Harding, secretary of the Utah State Board of Medical Examiners, reports the written examination held at Salt Lake City, April 7, 1909. The number of subjects examined in was 16; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 4, all of whom passed. Three reciprocal licenses were issued at this examination. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
University of Colorado	(1908)	81.
Northwestern University Medical School	(1908)	79.8
University of Louisville	(1907)	75.6
University of Michigan	(1900)	84.8

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
University of Iowa	(1899)	Iowa
University of Louisville	(1892)	Kentucky
University of Maryland	(1887)	Indiana

West Virginia April Report

Dr. H. A. Barbee, secretary of the State Board of Health of West Virginia, reports the written examination held at Huntington, April 13-15, 1909. The number of subjects examined in was 9; total number of questions asked, 120; percentage required to pass, 80. The total number of candidates examined was 22, of whom 21 passed and 1 failed. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Kentucky School of Medicine, (1905) 80; (1907) 80, 86; (1908) 80.		
Louisville and Hospital Medical College	(1908)	80, 83, 85, 91.
University of Louisville	(1893)	80.
Baltimore Medical College	(1908)	85.
Maryland Medical College	(1902) 87; (1908)	85.
College of Physicians and Surgeons, Baltimore	(1908)	82.
Leonard School of Medicine	(1908)	80.
Western Pennsylvania Medical College, (1899) 83; (1908)		82, 97.
[illegible] and Hosp., Philadelphia,	(1906)	90.
[illegible] Department	(1908)	89.
University of Vermont	(1907)	89.
University of Virginia	(1908)	91.

FAILED

Tennessee Medical College	(1907)	78.

Wyoming February Report

Dr. S. B. Miller, secretary of the Wyoming Board of Medical Examiners, reports the written examination held at Cheyenne, Feb. 10-12, 1909. The number of subjects examined in was 10; total number of questions asked, 100; percentage required to pass, 75. Only one candidate, a graduate of Starling Medical College, 1898, appeared for examination, who passed with a percentage of 75.9.

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, JUNE 8-11.

American Academy of Medicine, Atlantic City, June 5-7.
American Assn. for Study of Alcohol, etc., Atlantic City, June 7-9.
Am. Assn. of Med. Milk Commissions, Atlantic City, June 7.
Am. Gastro Enterological Association, Atlantic City, June 7-8.
American Ophthalmological Assn., New London, Conn., July 14-15.
American Orthopedic Association, Hartford, Conn., June 14-16.
American Proctologic Society, Atlantic City, June 7-8.
American Urological Association, Atlantic City, June 7.
Idaho State Medical Association, Seattle, Wash., July 19.
Maine Medical Association, Portland, June 16-17.
Massachusetts Medical Society, Boston, June 15-16.
Natl. Con. State Med. Ex. and Licensing Bds., Atlantic City, June 7.
New Jersey Medical Society, Cape May, June 23-25.
Medical Society of the State of North Carolina, Asheville, June 15.
Washington State Medical Association, Seattle, July 20.
Wisconsin State Medical Society, Madison, June 30-July 2.

AMERICAN THERAPEUTIC SOCIETY

Tenth Annual Meeting, held at New Haven, Conn., May 7-8, 1909

(Concluded from page 1782)

The Present Knowledge of the Action of Cathartic Drugs

DR. F. P. UNDERHILL, Yale University: Cathartic drugs act on the alimentary tract in a variety of ways, involving physical, chemical and physiologic activities. With the saline catharties the essential factor is the production of an intestinal secretion by nerve stimulation, with simultaneous inhibition of absorption. Peristalsis is secondary. Most of the vegetable catharties are peculiar in that they will produce their characteristic effects by whatever channel introduced, although certain untoward results may follow from subcutaneous injection. It is possible that the proposed derivatives of phenolphthalein will obviate this difficulty. Unlike the saline catharties, the presence in the blood of vegetable purgatives appears to be the essential factor in bringing about purgation. The principal effect of this class is the production by local irritation of a very active peristalsis which hurries the intestinal contents along the bowel. From recent observations, it has been learned that different drugs may act on entirely different portions of the alimentary canal. Thus, the purgative oils, according to their condition (presence or absence of decomposition products) may influence the movements of the stomach and intestine or the intestine alone, while a drug like senna shows no action until the large intestine is reached.

SYMPOSIUM ON DIET

Chronic Constipation Clinically Considered

DR. L. M. GOMPERTZ, New Haven, Conn: In my studies I have been especially interested in experimenting with agar-agar, and its systematic use as a part of the patient's daily diet has been attended with good results in a number of instances.

The Relation of the Food Stuffs to Alimentary Functions

DR. LAFAYETTE B. MENDEL, Yale University: In place of the usual discussion of the effect of the digestive processes on foods, I take up the relations from a somewhat reversed viewpoint, namely, the influence of the foods on various alimentary functions, believing that such influences are worthy of consideration for their possible therapeutic significance. In connection with the modern theory of hormones, or chemical excitants, we have certain facts bearing on the importance of such agents in exciting secretary functions and regulating glandular activities. Thus, gastrin, a gastric secretagogue, is formed by the action of food substances like meat extract, dextrin, etc., and the clinician can provoke the flow of gastric juice by the appropriate selection of ingested foods, and re-

press it likewise (as by the use of fats) in dietetic as well as nervous ways. The effects which follow stimulation or inhibition of secretory glands along the digestive canal, and the interrelation of such activities, have now been studied. So, also, the secondary consequences of variations in secretory activity which are induced by dietetic factors. Examples of such are found in the relation of the gastric sphincters to acid contents in the stomach, intestinal putrefaction, and other similar phenomena. The possibilities of dietotherapy should be carefully considered, in distinction from that type of feeding which is guided by chance or ruled by tradition.

Diet as a Prophylactic and Therapeutic Agent

This paper, by Dr. H. W. Wiley, Washington, D. C., was read by Dr. F. P. Morgan:

A perfectly healthy, well nourished organ becomes infected with any disease germ with great difficulty; in other words, it is self-protective. Hence, it is evident that the food, or diet, must play a most important part in the prevention of disease. It follows, necessarily, that the debasement of the diet, the addition of injurious substances thereto, or abstraction of valuable ingredients therefrom, must diminish the power of that diet to maintain the body in a state of hygienic equilibrium. All the constituents of the normal food of man have a useful function, and the sum of nutrition is the normal ingestion of the whole of these ingredients in their proper proportions The first requisite we should make for foods for invalids is that they should be pure, and the next most important thing is to find a pure food which the invalid can digest. In the progress of medical education the near future, in my opinion, will see the professorship of dietetics in a medical school advanced to the same rank as that of medicine, and, further than this, I believe that in the future the practice of medicine will be largely a practice of dietetics.

Diet and Care of the Bowels in Typhoid Fever

Dr. M. H. Fussell, Philadelphia: The clinical and autopsy evidence at command proves that a regulated milk diet does not irritate the bowel; neither does a diet of milk reinforced by carefully selected and prepared carbohydrate and nitrogenous diet other than milk. Common sense must be applied to both, and both may be used; but in semi-unconscious or wholly unconscious patients the diet must perforce be liquid. It is well to give divided doses of calomel if the patient is seen in the first week, in order to remove any irritating substance which may remain in the bowel. After that, a daily evacuation must be secured by enemas if there is a tendency to constipation. If diarrhea occurs, food must be stopped or regulated. If it then persists a mixture of salol and bismuth should be given, or an opiate if it is excessive.

DISCUSSION

Dr. James C. Wilson, Philadelphia: In typhoid, the great point is to treat each patient according to the special conditions of his case. It is often my custom to give a cup of coffee, more or less diluted with milk, in the morning, and then every two hours afterward milk in some form. I regard it as very important that the quantity should be moderate and that it should be taken very slowly. Various preparations may be employed from time to time, such as junket, kumyss, custard and ice cream. In some cases bread may be given. I have never felt it desirable to give pieces of chicken, chops or beefsteak, as these would not be acceptable or be properly masticated. My position, I may say, is somewhere between the "liquid diet" and the "liberal diet;" sometimes a little more in the direction of one and sometimes the other. The rapid emaciation encountered in typhoid is, I believe, not a matter of diet, but due to the infection of the entire system; and it can not be wholly controlled by any kind of diet.

True Versus Spurious Opotherapy

Dr. C. E. de M. Sajous, Philadelphia: The title of this paper refers to true and pseudo animal extracts. By the "true" agents I mean those which can be used intelligently, that is, with knowledge of the physiologic effects produced, because their active principles are known. Thyroid extract belongs to this class, since we know that its action is due to the iodin its secretion contains in organic combination. Adrenal preparations are, likewise, included, because their active principles, whether epinephrin, suprarenalin or adrenalin, are also known. Conversely, by "pseudo" agents I mean those animal extracts which are used blindly, without knowledge of their components, in almost any disease related directly or remotely with the organ from which the extract is obtained. Thymus and mammary extracts may be cited as examples of such agents. They are classed under the caption of "pseudo" until rendered fit by their sponsors, through chemical, pharmacologic and clinical researches, to be taken up by the profession as legitimate pharmaceutical agents. That so desirable a task is not impossible of accomplishment may readily be shown.

SYMPOSIUM ON PSYCHOTHERAPY

The Field of Psychotherapy and the Principles Involved

Dr. Morton Prince, Boston: There are certain principles, if not laws, which govern the functioning of the nervous system, namely: (1) Complex formation: By this is meant that associated ideas, feelings, emotions, sensations, movements, visceral functions of whatever kind, tend, after constant repetition or when accompanied by strong emotion, as well as under other conditions, to become linked together into a system or group in such fashion that the stimulation of one element in the group stimulates the activity of the rest of the group. Such a group is conveniently called a complex. The linking of functioning may be almost entirely of ideas or of physiologic processes, or of both. The path-breaking demonstrations of Pawlow furnish the key to the mechanism of many neuroses and psychoses, for the educated reactions of the gastric and salivary glands to ordinarily indifferent stimuli from the environment and to psychical states are in reality nothing but an artificially created psychoneurosis—a perversion of the normal reactions. (2) Conservation: By this is meant that all experiences (anything that has been thought, heard, seen or felt) tend to be conserved in the nervous system in such a way that they can be reproduced in a form approaching that of the original experience. This is the basis of memory. Conservation is fundamental for education, and on it the law of the linking of complexes depends. (3) Dissociation: This governs the normal psychonervous mechanism and is observed in a highly marked form in pathologic conditions. (4) Automatism: This plays a part in both normal and abnormal life. (5) Emotional energy: Intense sthenic emotions and feelings are accompanied by an increase of the vital functions, while certain depressive emotions are accompanied by a decrease of the vital functions. All these principles or tendencies are made use of in psychotherapy, which is educational in principle. We try to resynthesize the dissociated personality, from new healthy complexes, and organize them so intensely that they become a part of the organism and automatic.

Psychoanalysis in Psychotherapy

Dr. Ernest Jones, Toronto: In the first stage in psychotherapy, which most of the medical world is at present only entering, we clearly recognize that we have secured a new therapeutic weapon of the utmost value, which we may describe as the capacity to alleviate certain complaints by purely mental measures. A thoughtful person who employs any form of psychotherapy, however, soon realizes that a symptom which can be removed by mental measures is in all probability of a mental nature. Freund's psychoanalysis represents the second stage in the evolution of psychotherapy, and the psychoanalytic method is based on the knowledge that the symptoms present in the psychoneuroses owe their origin to a conflict between two groups of ideas which can not be brought into harmony with each other. One complex of mental processes is for some reason of such a kind as to be unacceptable to the main body of the personality. The personality, so to speak, fails to assimilate it, and the repressed complex then takes on an automatic existence and acts as an irritating foreign body. The central aim of the psychoanalytic method is to enable the patient to discover and appreciate the significance of the

mental process which manifests itself as a symptom. In carrying out this method several procedures may be adopted, according to circumstances. Under certain conditions the use of the hypnotic state undoubtedly has a legitimate place; but only a very few of those acquainted with the psychoanalytic method employ this at all extensively, as it has grave disadvantages. The procedure developed by Freund is the one most generally used, and gives by far the most satisfactory results. It is one of the ways of obtaining what is known as "free association," and is carried out by getting the patient to concentrate his mind on a given idea, generally in relation to a symptom, and asking him to relate truthfully in the order of their appearance the various thoughts coming to his mind. Among other valuable means of reaching buried mental complexes is the word-association method of Jung. By such ways the patient is able to free his personality from the constraining force of oppressing complexes, and, by taking up an independent attitude toward them, to gain a degree of self-control over his aberrant thoughts and wishes which was previously impossible. The method is thus in almost every respect the reverse of treatment by suggestion.

Simple Explanation as a Therapeutic Method

DR. E. W. TAYLOR, Boston: My aim is to show the possibility of the use of a psychotherapeutic procedure which involves no special technical knowledge and which is available for practitioners in all departments of medicine. It is a method which may be the means of alleviating many distressing conditions which simple encouragement can not accomplish. Its essential feature is the analysis of the mental state with reference to a search for the cause leading up to the developed neurosis. Many conditions regarded in their developed form as indications of an abnormal nervous system are, in reality, the normal reactions of a sound nervous system under special conditions of stress or misinterpretations of various events, in themselves innocuous. In the attempt to treat such cases the following general principles are suggested: (1) Diagnosis should be made; (2) this is best accomplished by allowing the patient to tell his complete story, rather than by a primary process of interrogation; (3) determination of the false point of view almost invariably reveals what has led up to the neurosis; the attempt is made to explain why such a series of events as that disclosed would be likely to lead to this result; (4) the patient having been impressed with the correctness of the physician's point of view, the process of readjustment begins, or, to use the more popular but possibly too comprehensive term, his re-education; (5) this is accomplished by pointing out in a painstaking manner the correct way to mental health, through a realization on the part of the patient of his previous misconceptions and through an accompanying effort toward the establishment of more rational mental adjustments.

Other Papers Read in This Symposium

"Psycho-prophylaxis in Childhood," by Dr. T. A. Williams, Washington, D. C.; "Character Formation in Relation to Psychotherapy," by Dr. J. J. Putnam, Boston; "Hypnoidal States and the Method of Hypnoidization in Psychotherapy," by Dr. Boris Lidis, Brookline, Mass.; "The Psychotherapy of Obsessions and Associated Conditions in So-called Psychasthenia," by Dr. J. E. Donley, Providence, R. I.

The Dietetics of Chronic Diseases

DR. WILLIAM H. PORTER, New York: All foods are divisible primarily into two distinct classes, the purely vegetable and the purely animal. Both these are divisible into five distinct groups of substances. Neither one is absolutely perfect in composition, but the animal class approaches more nearly to perfection than the vegetable. The animal class is more easily digested and assimilated, and it is also more economic, than the vegetable. To secure a perfect or ideal diet the two must be used together. Between the two extremes we have two other dietaries: one in which the two classes are blended perfectly, and one in which the two are less perfectly adjusted. The latter is often spoken of as a purely vegetable diet, while, in reality, it is a poor form of mixed diet; hence there is much confusion in the minds of many who discuss the subject. When an ideal diet is secured, one which suits the individual case, marvelous results can be secured, and especially when this is used in conjunction with well-directed therapeutics.

DISCUSSION

DR. WOODS HUTCHISON, New York: As regards the dietary in chronic diseases, the attitude of late has been on the side of cutting down the amount of food; so that we are confronted with the danger of underfeeding. The bad effects of underfeeding are particularly noticeable in some of the races, like the Japanese and Chinese, who are accustomed to a diet lacking in the protein element. Consequently they suffer from such affections as beriberi.

The Effects of Modern Synthetics

DR. F. P. MORGAN, Washington, D. C.: The introduction of these synthetics has added very materially to the number of useful medicinal agents. Such substances, however, should never be recommended for general use until after they have been subjected to long and searching investigation. Even under these circumstances many of them appear to be peculiarly liable to produce occasional ill effects, and cases are not infrequently reported of the sudden and unexpected development of untoward results from the use of one or another of them. This seems to be particularly true of the group of substances commonly known as the coal-tar antipyretics. There can be no question as to their medicinal value, and I am of the opinion that whatever harm these agents may be doing to-day is not so much due to the drugs themselves as to the conditions characterizing their use. It can be said without hesitation that their promiscouous sale to the laity, which is carried on to an enormous extent in the form of headache powders, etc., is often productive of much harm. Reports from 400 physicians sent in reply to a circular from the Department of Agriculture show 814 cases of poisoning by acetanilid, antipyrin and acetphenetiden, with 28 deaths and 138 instances of habitual use.

Hypodermatic Medication in Modern Therapy

DR. S. L. DAWES, Albany, N. Y.: The administration of drugs hypodermatically is regarded as possessing distinct advantages over other methods, such as a more rapid rate of absorption, greater certainty of effect, quicker elimination, with less danger of cumulative action, and no derangement of the digestive processes. For several years it has been my custom to give all hypodermatic injections intramuscularly, rather than subcutaneously, my clinical observation having taught me that by this method the rate of absorption is much more rapid, the result more accurate, and the discomfort to the patient markedly less. That my conclusions are not at fault is borne out by the careful and accurate investigations of Meltzer and Auer made on rabbits. The occurrence of abscess, erythema, induration, or any other local disturbance in hypodermatic medication is almost without exception to be attributed to want of care or knowledge in selection of site and mode of operation, to unsterile instruments, or to unsterile, improperly prepared or preserved solutions.

Alcohol Injections in Neuralgias, Especially in Tic Douloureux

DR. O. G. T. KILIANI, New York: To Schlösser we owe the method of injecting alcohol with certainty into the trunk of the three branches of the fifth nerve, or, if necessary, into its roots. He employs alcohol, and in order to hit the nerve with certainty, advises that the injections be made into the foramina through which the different nerves emerge from the skull. Since September, 1906, I have thus injected alcohol into 190 patients with facial neuralgia, among which there were 5 failures. The other 185 were all entirely relieved of pain and of their anxiety over expecting pain (the mental effect is sometimes nearly as bad as the pain itself), and the average number of injections required was three to each patient. Of the 190 patients, 42 per cent. have had no recurrence to date. Taking into consideration the cases in which at least eighteen months have elapsed since the treatment, 21 per cent. of the

patients have remained free from pain for that length of time. In the other cases the time when the recurrence appeared varied from three months to two years.

Therapeutic Drainage in Two Hundred Cases of Uterine Obstruction. Presentation of a New Fenestrated Rubber Uterine Drain

DR. A. ERNEST GALLANT, New York: The relief of obstruction due to flexions and fixation has been accomplished by the following plan: (1) Stretching, by massage, of the bands or thickening whenever the uterosacral ligaments showed evidences of previous inflammation; painting the vault with pure ichthyol and tamponing the vagina every third day. (2) When the internal os is found tender to the passage of the sound, or the flexion is 90 or more degrees, forcible stretching of the adhesions under anesthesia, dilatation of the cervix, preferably by graduated sounds, and curetting of the mucous membrane, followed by irrigation of 1 to 2,000 potassium permanganate solution. (3) Introduction of a bivalve drain (in some instances suturing with silk gut) to remain for some months; a very necessary feature if permanent drainage and restoration of the cervix to its normal shape and caliber be desired. (4) Insertion in the vagina of a roll of gauze, its upper end being placed directly under the cervix, to serve the double purpose of a wick drain and uterine support. (5) The performance of trachelorrhaphy in instances of deep laceration into the fornices, and when the cervix is greatly hypertrophied and cystic.

Acapnia as a Factor in Disturbances of Function, and the Prevention of Acapnia

DR. YANDELL HENDERSON, Yale Medical School: For the proper performance of the various functions it is essential that the amount of carbon dioxid should be uniformly maintained. The object of the respiration is for this purpose, and the name acapnia has been given to the diminution in carbon dioxid met with in excessive respiration. I believe that acapnia is the cause of surgical shock, though this has not yet been proved. To avoid it in operations the initial stage of anesthesia should be made as short as possible, and it is equally important to bring the patient out of anesthesia without excessive respiration. Again, in laparotomies the exhalation of carbon dioxid from exposed viscera has been found to be forty times as great as that from the skin, and this should be prevented by keeping the organs protected by means of some impervious covering.

Other Papers Read

Other papers read at the meeting were the following: "Superficial Dermatitis of the External Auditory Canal," by Dr. C. J. Blake, Boston; "Medical and Surgical Treatment of Senile Enlarged Prostate," by Dr. O. C. Smith, Hartford, Conn.; "The Therapeutics of Some Obstetric Conditions," by Dr. B. A. Cheney, New Haven; "Recent Investigations as Related to the Therapeutics of Cardiac Arrhythmias," by Dr. T. E. Satterthwaite, New York; "Pain; Its Diagnostic and Therapeutic Value," by Dr. E. D. Fisher, New York; "Treatment of Stokes-Adams Syndrome," by Dr. R. W. Wilcox, New York; "Therapeutics of Calcium Creosote," by Dr. L. Kolipinski, Washington, D. C.

MONTANA STATE MEDICAL ASSOCIATION

Thirty-first Annual Meeting, held at Missoula, May 12-13, 1909

The President, DR. I. D. FREUND, Butte, in the Chair

Inability to Diagnose Appendicitis the Real Reason for the Mortality of Complications

DR. W. L. BISHOP, Butte: The mortality of appendicitis is in reality the mortality of the complications. Differentiation of the symptoms of uncomplicated appendicitis from the symptoms of complicated appendicitis is an urgent necessity. It should be impressed on physicians that the majority of cases are atypical and have only the one sign—tenderness—in common. The diagnosis should be made from tenderness alone, and operation should be advised in every case presenting localized tenderness.

Extrauterine Pregnancy

DR. E. F. DODDS, Missoula: Extrauterine pregnancy is of great importance to the man in general practice. Early recognition and prompt treatment are of the utmost importance. Mistakes in diagnosis are frequent in the early stages. Opinions of surgeons as to the best manner of treatment of this condition differ widely in relation to: (a) Shock; (b) hemorrhage. In nine cases which occurred in my practice, all the patients were operated on; eight by the abdominal route, one by the vaginal. In this last case there was hematocele. One death occurred after repeated hemorrhages.

Need for State Supervision and Care of the Consumptive

DR. MARY B. ATWATER, Helena: Six per cent. of all deaths in Montana are due to tuberculosis. All the older states have laws in regard to the prevention and control of this disease and Montana should not fall behind. One great means of prevention is found in the laws requiring inspection of school children, teachers, and schools. The state provides for the education of its citizens, it should also take cognizance of their physical welfare. Health and education should go hand in hand. There should be medical inspection of schools not only for the welfare of the children but for the protection of the community. Children showing a hereditary tendency to tuberculosis should be watched and guarded; those already infected should be placed in special outdoor schools. America is one of the last of civilized countries to appreciate the need of legal supervision of the tuberculous patient. Since impure milk and diseased meat are generally accepted as two of the chief causes of tuberculosis, the inspection of cattle is one of the most important problems confronting us to day. Two per cent. of all range cattle are said to be infected and of dairy cows a very large percentage are said to be affected. Besides strict laws for the inspection of meat and milk supply we need an efficient and sanitary street cleaning system—the streets should be flushed, not swept. We need medical inspection of schools—children, teachers, and buildings. There should be laws compelling the registration of every case of tuberculosis—laws which would enable us to handle a case of tuberculosis legally as promptly as we now do cases of smallpox or diphtheria. In order to do this the more advanced cases should be segregated and to do this we should have the legal right to place these patients where they can have proper care and cease to be a menace to the community. Physicians should interest themselves in politics and either go to the legislature or see to it that the men who are sent will enact the laws which the people of Montana need.

Advances in Bacteriology and the Present Status of Opsonic Therapy

DR. SAMUEL T. ORTON, Anaconda, read a comprehensive paper on this subject in which he touched on the following points: Bacillus-carriers: Recognition of the fact of the occurrence of pathogenic organisms in healthy persons. The tubercle bacillus: Its penetration of the intestinal mucosa in young guinea-pigs without causing a lesion and its presence in the blood and feces in human cases. The ocular and cutaneous tuberculin reactions: Description of methods; statistics and opinions. Yamagouchi's anaphylactic test for tuberculosis. Balanced toxin-antitoxin mixtures: Theobald Smith's observation on active immunity induced by this method. The *Spirochæta pallida:* dark-field method; inoculation experiments. Serodiagnosis of syphilis: Description of methods of Wassermann, Porges and Klausner; discussion of reactions in syphilis and the parasyphilitic diseases. Flexner's antimeningitis serum. Hiss and Zinsser's observations and experiments with leucocyte extracts. Opsonic therapy: Definition; theories; autogenous vs. stock vaccines; index reading vs. clinical method of control; diseases amenable to vaccine therapy.

Legal Regulation of Midwives and Importance of Proper Care of the Obstetric Patient

DR. W. H. JOHNSON, Billings, discussed physicians and legislative matters in general and laws relating to midwifery in particular. Among other things he said: Physicians should take more interest in the laws relating to the practice of medicine and the regulation of midwives. In Montana there are many women, neither physicians nor trained nurses, who, without a license or training of any kind are permitted to

visit, examine, and deliver or attempt to deliver pregnant women. While I must admit that 75 per cent. of all such patients could deliver themselves if left absolutely alone, there are, on the other hand, the other 25 per cent. who need assistance in some form and it is impossible to determine who those may be without examination; and while it is not in every case that a midwife ever goes so far as the examination there are those who do so and do so repeatedly and with absolutely no heed to asepsis in any way. We can all remember the time when sterile gowns were made to take the place of the dirty kitchen apron, and how he who advocated the plan was made the subject of many a jest as well as he who fought for the rubber glove in this kind of work, and I would like to say that not the midwife alone deserves criticism for uncleanliness but many physicians as well who are regardless of the laws of asepsis and antisepsis. They will rush into a confinement with no thought of surroundings and personality, and attempt the delivery of women, even in forceps cases, who are surgically unclean and for whom, except in a life-saving measure, nothing should be done until aseptic precautions have been taken. It is more probable for septicemia to occur in this region than any other except possibly the peritoneum, and still we watch the dangerous work go on without one single word of protest. We allow the midwife to visit the woman in labor with the same clothing worn while on a recent visit to a contagious case, be it diphtheria, measles, scarlet fever or typhoid: or the busybody may have dressed a suppuration somewhere in the neighborhood and without a single preparation except a little soap and water on the hands, proceed to examine the woman about to be delivered. Is there any plausible reason why obstetrical patients should not have the same preparation accorded to surgical patients? I believe that many physicians become exceedingly careless about these important points and do not realize until too late that measures of extreme importance have been overlooked. I wish to emphasize the necessity for more precise and thorough work among physicians and a compulsory course and state board examination for midwives. I believe that we have no such regulations at the present time concerning midwifery and if such be the case the Montana State Medical Association should lose no time in setting the matter right. It ought to be the duty of every physician to use trained nurses in all confinement work or else to instruct his patients in regard to all utensils and dressings, and the method of thorough sterilization and to see that his instruction is scrupulously adhered to.

Other Papers Read

"Alcohol as a Cause of Disease and the Relation of the Physician to the Alcohol Problem," by Dr. H. F. Canaan, Anaconda; "Higher Education,' by Dr. Dennison, State University of Montana; "Diplococcal Infections of the Skin," by Dr. H. D. Kistler, Butte; "Nervous Influenza and Nervous Conditions in Women," by Dr. J. R. E. Quires, Butte; "Some Suggestions in Regard to Hernia Operations," by Dr. T. C. Witherspoon, Butte.

NORTH DAKOTA STATE MEDICAL ASSOCIATION

Twenty-second Annual Session, held at Fargo, May 11-12, 1909

The attendance was about as large as there has been at any annual meeting. The program was replete with papers that were unusually good and instructive and the discussions were spirited and entertaining. Papers were also contributed by the following invited guests: Drs. A. McLaren, A. Gillette and T. W. Stumm of St. Paul, Minn. Dr. Stumm delighted his hearers with the masterful way in which he portrayed an uncompensated heart.

Organization

It was a source of gratification to find more physicians reported as in good standing than at any previous time. The lame part reported in organization seemed to be a lack of active work by the councilors who up to the present had not risen to the height of their opportunities. It was stated that so many physicians had not affiliated with the local societies that recruiting would be necessary and that the additional labor would fall on those who have been elected to counsel and advise and boost the membership.

President's Address

The President, Dr. H. A. Beaudoux, Fargo, congratulated the officers of the district societies for their untiring effort to interest and bring in new members, and to make the meetings instructive and profitable. He recommended such postgraduate courses as might be authorized by individual societies or according to the plans offered by the American Medical Association. He advised the invitation of laboratory men who, through the opportunities offered, could bring to the meetings new stimuli and special knowledge. In districts where distances are great and railroad communication inconvenient, the organization of sub-societies, subsidiary to the district societies to which they geographically belong, to meet with the district society annually for the purpose of making their report and participating in the election of officers. The profession as a whole, out of consideration for the public which it is to safeguard, should be awake to its manifold duties in sanitary legislation, anti-charlatanism and prophylactic measures of all kinds. Each member of the profession should consider himself a health officer in preventing the pollution of streams and the spread of disease to innocent people. The easiest way to rid a community of pollution is by preventing it, and this is much easier in a new community than in the older ones where it is already widespread. The echo of that great scientific body which met last fall in Washington, D C., had barely faded away when the country, quickened by its deliberations, and believing in the earnestness of its participants, began an active campaign against our common foe. "Antituberculosis" has been the cry and the wave of education which is sweeping state by state has led us to believe that we are fully awake to the importance of Koch's discoveries and that we as an intelligent people have determined to rid ourselves of that plague. The North Dakota State Board of Health sought an appropriation for an antituberculosis crusade and although it was denied by the legislature, the secretary of the board, with the director of the state bacteriologic and pathologic laboratory, Dr. G. R. Ruediger, has nevertheless almost completed these preparations and planned a most thorough and efficient campaign through the state. To further and promote state legislation and appropriation and to assist the State Board of Health in carrying on its work unhampered, as well as to assist the committee on public policy and legislation, it has become necessary that as physicians we realize our position and medical influence in such matters. The members of the present legislative committee, well-trained and efficient in their work pertaining to such demands, have not met with the success they had hoped for, not because they are inactive or inefficient but from the fact that legislators like the great majority of the laity look on medical legislation from a commercial standpoint and through lack of education and appreciation of our work are too prone to label our demands with the stamp of personal greed and gain. We should return to our homes with the determination of impressing our prospective representatives with the importance and benefit of our work and if necessary to make our demands a political issue. By so doing we shall attain far better results than we have in the past by sending a body of medical men to the capital on the eve of defeat. We are better equipped to pass sane and important legislation than any other body of men and to make ourselves felt in public matters owing to our intimate relations, as family physicians and advisors, with the voters throughout the state. There is not a man who enjoys the confidence of his patients who can not in a few words convince him that what is being asked by the medical profession, is for the benefit of all with special privileges to none. Let us therefore trust that before we leave this meeting the sense of this society shall be that we are determined to bring such influence to bear on our representatives as may be necessary to secure the legislation recommended by this society as well as outlined by our legislative committee. One of the most important legislative acts which is focusing the attention of the intelligent people everywhere is the sterilization of defectives and habitual criminals as a necessary measure of social economy. Statistics show that the mentally defective classes, natural criminals, imbeciles, insane, and epileptics, have multiplied in the last thirty years more than twice as fast as the total population.

The question has arisen in the past of the advisability of publishing our transactions in connection with some adjoining

state and to make their journal the mouthpiece of this association. It has occurred to me that there is no reason why we should not only publish our transactions but also edit a quarterly if not a monthly journal of our own. There is certainly ample material and brain and, it goes without saying, pride in this society to carry such a plan to a successful issue both scientifically and financially. The material from our annual meetings together with the report of committees, papers read at the different district societies with the work and report of the state board of health and state laboratories would provide ample interesting material if properly prepared.

The House of Delegates

The advisability of publishing a journal was considered, and while it was thought to be desirable to have such a medium in the state, the financial support was considered inadequate for such an undertaking and the project, with not a few advocates in its favor, was deferred. These resolutions were considered and approved:

Resolved: That this association heartily approves the action of the Board of Trustees in restricting advertisements of medical preparations to those approved by the Council on Pharmacy and Chemistry of the American Medical Association; and further be it

Resolved: That this House of Delegates requests all those state associations which now do or hereafter may publish or control medical journals to restrict their advertisements to such approved preparations, and that the General Secretary be requested to bring this resolution to the attention of all state associations.

The legislative committee was instructed to formulate and present at the next annual meeting some practical plan for the care of such medical legislation as would come before the next legislature for enactment. The sterilization of criminals and other defectives by vasectomy was considered and recommended to the careful consideration of the law makers of the state and referred to the legislative committee.

The committee on tuberculosis made an exhaustive report and requested that in the future it be permitted to work in conjunction with the public health committee of the state, the work being along similar lines—it was thought best to consolidate effort in the hope of achieving better results, and then request was granted.

APPROPRIATION FOR CARROLL FUND

The matter concerning the conditions under which the widow of Dr. James Carroll, Major and Surgeon, U. S. Army, is suffering was brought to the attention of the House of Delegates and on motion one hundred dollars was appropriated to assist in saving the home of the widow of this medical hero, whose self-sacrifice contributed so greatly toward the control of yellow fever.

DELEGATE TO PHARMACOPEIAL CONVENTION

The president was authorized to appoint a representative to attend the United States Pharmacopeial Convention to be held in Washington, D. C., May, 1910.

A list of the officers elected appeared in THE JOURNAL, May 22, 1909, p. 1674.

SOUTH CAROLINA MEDICAL ASSOCIATION

Sixty-first Annual Meeting, held at Summerville, April 20-22, 1909

The meeting of the county secretaries was held on the morning of April 20. The object of this meeting, as stated by the president, was to effect the organization of the county secretaries into a body which would eventuate in better work being done throughout the state. The name and county of each secretary was enrolled. A number of talks were made, the president emphasizing the point that the secretary was "the man who did the work," and was therefore the most important man in the county society. The president also earnestly recommended, as did several others, that the county societies report important cases to the state association, and also that the discussions on these papers be taken down by a stenographer.

A card index system was adopted, by which monthly reports could be sent in to the state secretary.

The by-laws of the Missouri county secretaries were adopted, with a few modifications, and the time of meeting was set as the morning of the first day of the session of the state association.

Chairman, vice-chairman and secretary-treasurer were elected, and an executive committee, composed of five members, of which the secretary and treasurer of the state association are members ex-officio.

A committee was appointed to read papers at the next meeting on work pertaining to the organization.

Relationship Between the County Secretary's Office and the State Secretary's Duties

DR. WALTER CHEYNE, secretary of the South Carolina Medical Association and president of the National Association of State Secretaries: The relationship between the state secretary's office and that of the county secretary's should be that of father and son, so to speak; there should be intimacy and that courtesy which should be extended to true relationship. Each county secretary should see that every man's name in his society is on file in the state secretary's office, etc.

Officers Elected

A list of the officers elected appeared in THE JOURNAL, May 8, 1909, p. 1506.

Educational Plans and Methods to Improve Sanitary Conditions

DR. S. C. BAKER, Sumter, in his presidential address, emphasized civic healthfulness, not only from the viewpoint of benefit to the individual, but to the state and nation. His plea was for the establishment of conditions that would not only alleviate the ills of present sufferers, but would safeguard unborn generations by the elimination of the possibilities of ill. For this reason he emphasized the need of restricting marriages between parties with blood taint. Imperfect drainage, water, food, house ventilation and isolation in contagion were also noted. He also spoke in behalf of improved and advanced medical education; first in behalf of South Carolina, then for the whole country. He advocated hospital internship or a year of general practice before postgraduate courses. Loyalty to and patronage of state institutions or hospitals he deemed the wisest and best way to afford mutual upbuilding as well as state wide confidence on the part of possible patients. This carried with it the idea of personal research. In speaking of alcoholic beverages, he said:

"The question of the further limitation of alcoholic beverages has become almost a national issue. The wisdom of its forcible curtailment we will leave with the prohibitionist, the politicians and the people. We recognize the evils of over indulgence. I believe that the craving for liquor is greatly augmented by the general depletion of our vitality. This question is one that intimately affects our people, and we are as competent to test and solve it as any. Let us, then, endeavor to work out the cure for the inebriate, but let us go further and solve the problem of how to eradicate the tendency to inebriety. At the same time we might strive to curtail the evil of gluttony, as one which possibly is filling more graves than whiskey."

With regard to the new cults, faith or semiprofessional, Dr. Baker urged leniency with watchfulness, since many individuals have been shown to have been relieved even when treatment by regular practitioners seemed to have failed. He paid marked tribute to the physicians and surgeons of the South, whose talents and energies have become known world-wide in the history of professional benefaction. Referring to the approaching centenary of Dr. J. Marion Sims of Lancaster county, S. C. in 1913, Dr. Baker recommended the erection of a monument within his native state, to honor appropriately a man whose labors have brought so much of relief into the world.

He suggested that a prize be given every year or two years for the best work in original research within the borders of South Carolina by a member of the association.

Tropical Diseases in the Canal Zone

DR. HAYNE discussed briefly the commoner tropical diseases that are met with on the Isthmus: Yellow fever, beriberi, leprosy, dhobie itch, elephantiasis, tropical neurasthenia, malaria, ankylostomiasis, dysentery and liver abscess. He

demonstrated the thoroughness with which the Panama sanitarians are destroying the breeding places of the anopheles, screening all the houses and using quinin prophylactically. He emphasized the routine examination of the stools. Ankylostomiasis, he said, was fast being eliminated with thymol. In Panama they had accomplished a first great step in the dysentery problem—the certain diagnosis of the amebic variety with its sequel of liver abscess. Dr. Hayne showed that the field of tropical medicine was a wide one and emphasized the need of a knowledge of zoology for the southern practitioner.

Problem of Pacific Quarantine, Which Will Apply to the Atlantic Coast When the Canal Is Completed

DR. COPER, P. A. Surgeon United States Public Health and Marine-Hospital Service: The Pacific is like a wheel, with ports all around the rim, and with lines of travel crossing it like spokes. These ports are centers of population and distribution, that may either import or export disease, as well as merchandise. The quarantinable diseases are yellow fever, smallpox, cholera, typhus and leprosy. Except typhus, these are more or less prevalent in South America and Western Asia. The non-quarantinable diseases are scarlet fever, diphtheria, amebic and bacillary dysentery, beriberi, trachoma and ankylostomiasis. The shorter the time of the voyage, the shorter the stay in port, the larger and higher out of the water the vessel, and the more completely the different parts of the vessel are separated, the less danger of carrying diseases. Hence, from a sanitary standpoint, steamships are vastly superior to sailing vessels. The tramp sailing vessel is the most dangerous; the army transport least so, because carefully inspected. As commerce increases between the South Atlantic ports and those of South America and Western Asia, it is possible we may send them malaria and yellow fever, in exchange for plague, cholera and leprosy. Quarantine is, at present, very efficient. Vessels are inspected, and at times disinfected or quarantined on leaving port, on entering port, and sometimes on the way. The condition of the public health of all ports is regularly reported to the surgeon-general of the Public Health and Marine-Hospital Service. Greater marine sanitation will be necessary when these ports communicate with the Pacific through the canal. The number of visitors will be increased, as well as insanitary, foreign population, living along the water-front. The Pacific ports have taken this matter up. The quarantine is a burden to commerce, but they realize that the better the sanitation, the less need for strict quarantine. However efficient the quarantine, occasionally an infected mosquito or rat will reach shore. If municipal sanitation against these pests is effective they will do no harm. If it is not effective, they will start an epidemic of yellow fever or plague.

The Common House Fly

DR. F. A. COWARD, Columbia: The house fly forms 98 per cent. of diptera in the civilized world, and is world-wide in distribution. Its only useful rôle is that of scavenger—which is of negligible value when compared to its annoyance and dangerous filth and disease-carrying habits. Its preferred breeding place is horse manure, the excrement of other animals, and human beings; decaying vegetable matter will serve, when proper warmth and moisture coexist. Ten-days suffice for development of a brood; fifteen broods a season are possible in South Carolina's climate. Twelve flies surviving the winter may reproduce 40,000 during the following warm season. Two hundred larvæ have been observed in one cubic inch of manure. The fly's life is but a few weeks, but in a dormant stage it may live through the winter in closets and warm parts of houses. Efforts at extermination should be made through the cold season—to catch the relatively few hibernating insects. Traps, sticky fly paper, poison, and killing by hand are recommended.

Address on Surgery: Urogenital Tuberculosis

DR. BRANSFORD LEWIS, St. Louis: An easier, clear conception of urogenital tuberculosis is obtained when the general scheme or plan of attack on these organs by the infection is understood. Transmitted in any one of five different ways, the tubercle bacilli reach the urinary or genital organs; certain of these organs habitually receive the brunt of the attack first, while others invariably stand secondary in this respect. In the majority of cases, one or the other kidney is the organ first attacked; in a small proportion an epididymis is the point of initial attack. From these respective foci the infection spreads in the direction of the physiologic secretions (the urine and semen); that is, from the kidney downward, along vas deferens, seminal vesicle, ejaculatory duct, prostate and urethra to the vesical neck. Thus the bladder stands in the line of secondary attack from either direction, and likewise stands a most excellent chance of ultimate infection, no matter how resistant it may show itself for a time. Vesical tuberculosis is therefore an affection invariably secondary to tuberculosis of some other urogenital organ; and must be so considered in respect to diagnosis, prognosis, therapy and management.

The marital relation is not considered an important or frequent factor in the transmission of tuberculosis, notwithstanding that coincidences of that kind are often reported. While demonstration of the tubercle bacillus is usually the crucial factor, its demonstration is not absolutely essential; and on the other hand, the presence of bacilli in the urine does not necessarily indicate vesical tuberculosis, as the bacilli may float for long periods in the urine of persons whose urinary tract is innocent of any pathologic lesion. All the staining methods in vogue for the differentiation between smegma and tubercle bacilli are liable to lead to error and disaster in diagnosis. In obtaining the urinary specimen for investigation, smegma bacilli should be absolutely excluded by cleansing methods and careful catheterization, no dependence being placed on the specimen passed voluntarily. Cystoscopy is the other necessary factor for fixing the diagnosis of vesical tuberculosis, and it should be employed for both diagnosis and treatment. I am decidedly opposed to the rather broadly disseminated view that urinary tuberculosis means interdiction of such instrumentation. The cystoscopic picture, while often characteristic, is not always typical or certain. The condition called lymphoid tubercle often simulates real tubercle, but without having any relation to Koch's bacillus. The positive evidence presented by the appearance of a ureteral orifice is valuable, but the negative evidence is of little import. Tuberculous kidneys have been removed in cases in which the corresponding uretral orifice showed nothing abnormal to the cystoscope. The segregator is of little value, as compared with the more exact method of uretral catheterization. The latter is free from the theoretical danger attributed to it, that of conveying infection into the healthy ureter. The treatment of vesical tuberculosis is divided into palliative and curative, by hygienic, systemic, local and operative measures. The modes of treatment embrace, besides general, systemic and hygienic measures, tuberculin treatment, operation on the original foci of infection, operation on the bladder, without perhaps extirpation of the organ and transplantation of the ureters; curetting of the organ, with application of medicaments and drainage; local applications to the vesical mucosa; cystoscopy and ureteral catheterization, and applications into the bladder or ureters. The profession should no longer consider cases of urinary tuberculosis as beyond the reach of assistance or beyond reclaim. Many such patients are brought back to health and strength and comfort, both with and without operation. Tuberculosis of these organs is amenable to judicious care and treatment as it is of other parts of the body.

Sources and Modes of Infection in Tuberculosis

DR. M. P. RAVENEL, University of Wisconsin: For practical purposes, the only modes of infection that will be considered are through the respiratory and the digestive tracts. All the early experiments on respiratory infection were defective in the fact that no effort was made to prevent the swallowing of material inhaled, and much matter which entered by the nose finally reached the stomach and intestine. The tonsils are a frequent port of entry. It has been proved that the tubercle bacillus may penetrate the unbroken mucous membrane, without leaving any mark at the point of entrance. It

has been necessary to revise our ideas, in view of modern experiments which have shown that inoculation into practically any part of the lymphatic system may produce tuberculosis of the lung. It has also been shown that inoculation of tubercle bacilli into the tail of an animal may produce pulmonary tuberculosis. Experiments in feeding have demonstrated the same thing. Further experiments with the injection of the tubercle bacilli directly into the stomach through an opening in the abdomen have demonstrated that the tubercle bacilli can arrive in the lung in large numbers within from three and a half to twelve hours. The route from the intestine to the lung is through the thoracic duct, and after entrance into the blood, the tubercle bacilli are retained in the capillaries of the lung through the filtration action of the lung. Two principal sources of infection must be recognized. The chief danger to man is the tuberculous man. Careless expectoration is probably the chief mode by which human tubercle bacilli are distributed. Tuberculous cattle infect a considerable number of persons. Of 306 cases of human tuberculosis including those given by the German Imperial Commission and British Royal Commission, 63, or more than 20 per cent., were due to bovine bacillus. Of the 84 children examined by the German commission, 21, or 25 per cent., showed infection by the bovine bacillus. The physician who allows a child to drink the milk of a tuberculous cow is criminally responsible. It is a duty of cities and states to enact laws requiring that all dairy cattle shall be tested and found free from tuberculosis. In stamping out the disease, both sources of infection must be taken into consideration. If only one is considered, the work will be incomplete.

Retropharyngeal Abscesses

DR. E. W. CARPENTER, Greenville: This is a rare surgical affection of the throat, more prevalent in children, and while the symptoms are prominent, they are often misinterpreted. Medical literature contains very few mentions of the condition, though it was described as early as the second century of our era, by Galen. The points emphasized are the necessity for early recognition and correct method of treatment.

Pellagra

DR. G. A. NEUFFER, Abbeville: The treatment of the majority of these patients is interesting, in that it is on somewhat original lines. Hydrogen dioxid was used internally for the relief of gastrointestinal symptoms, while at the same time arsenic was given for the skin lesions. The most important pathogenic symptom was pellagral erythema, which appears almost always in the spring and attacks the exposed surfaces. Pellagra is not contagious or communicable. Its immediate cause is supposed to be the use of diseased maize, which forms a toxin. Bad hygienic conditions, lack of proper food and exposure to the sun are the essential requisites for the contraction of the disease. There are digestive troubles in connection with the cutaneous manifestations—dyspepsia, ptyalism and diarrhea, which is frequently of a dysenteric nature. The milder cases improve after a few months, there being apparently a complete recovery during the winter. In the more severe forms there are pronounced nervous symptoms: headache, backache, spasms and then paralysis and mental disturbance. Suicidal mania and melancholia are frequently encountered in the third and fourth attack. There is rapid emaciation and the mucous surfaces from the mouth to the anus are affected, the tongue becomes red and denuded of epithelium and the gums swollen and sore, the genitalia are also affected, the vagina and cervix are red, inflamed, and itch, and there is considerable discharge. Usually there is elevation of temperature. This disease is rarely seen save in the poorer classes, and in women between 30 and 50. In the first case here reported stomatitis was diagnosed, but treatment for that did no good. This patient was seen in 1906. There was an eruption on the back of the hands, and fever ranging from 100 to 102 F. The tongue was red and slick and there was pain over epigastrium, etc., finally resulting in acute mania. Consulting physicians could not make diagnosis. Patient died three months after being seen. The second patient, a negress of 27, there were the same clinical symptoms, and about the same treatment was given. The patient grew steadily worse and another physician called in failed to effect a cure, patient dying in three months. There was acute mania for several days before death. The third patient, 50 years old, complained of sore mouth, and medicine did no good. There were characteristic symptoms, but no typical eruption on backs of hands. Patient died in a short time. There was intense nausea all the time. A fourth patient, aged 40, had suffered for some years with articular rheumatism. In 1907 she had what she supposed to be "chapped hands." On May 3, 1908, she complained of dysentery and sore mouth and was treated for several days without improvement. Then eruption appeared on the backs of hands. Consulting physicians thought she would not live longer than sixty days. A mouth wash of hydrogen dioxid had done her good, and this suggested internal treatment. I gave 15 drops in water every three hours. She began to improve at once, and one month later all symptoms of pellagra had disappeared. The patient is living and is kept on tonic of iron, quinin and strychnin. All maize products are forbidden her and a generous meat diet is given.

The Surgical Significance of Angiosclerosis in the Eye

DR. CHARLES W. KOLLOCK, Charleston: I wish to emphasize the importance of the early recognition of the causes of disease, in order that preventive treatment may be pushed at a time when most useful and necessary. It is important to make a careful study of the retinal vessels in all cases in which sclerosis might be present. Arteriosclerosis, however, may affect vessels in one part of the body and not another; one portion of a vessel may be affected and the other not, but when sclerosis of the retinal vessels is present in many instances it exists also in the smaller vessels of the brain. Stengel has said that even more important than the four well-known facts for increased arterial tension, is a knowledge of the conditions of the retinal vessels as seen by the aid of the ophthalmoscope. The "corkscrew twigs," flattened veins, "silver wire" arteries and hemorrhages are signs of arterio sclerosis that are never wrong, and are, in most cases, a reliable indication of the condition of the vessels of the brain. A most careful search should be made for the above conditions in all persons over the age of 40. Great risks are taken by those who, when in need of glasses, consult an optician or refractionist, rather than an educated physician who not only understands the art of refraction, but also knows and appreciates the importance of a thorough ophthalmoscopic examination.

The Campaign Against Tuberculosis

At the meeting of the antituberculosis committee, on April 20, in connection with the state association, encouraging reports were made with reference to the work of the organization.

Dr. Dawson, chairman of the state antituberculosis committee, presided over the meeting. The following is a brief outline of his report to the association:

At a meeting held in Columbia, Oct. 29, 1908, the committee of the South Carolina Association for the Study and Prevention of Tuberculosis was organized. A standing committee was appointed, consisting of one member from each county inside of the state of South Carolina. Members of such committee were instructed and empowered to organize, in their respective counties, such organizations to consist both of laymen and physicians, to aid and cooperate in the fight against tuberculosis, and also to instruct, so far as possible, the public in general as to the method of conveyance of tuberculosis, as well as its prevention and cure. The aid of civic clubs was also invoked and arrangements were made that the poorer classes would be visited and instructed in their homes. It was provided that this committee meet annually on the day before the regular meeting of the state association, at such a place as that organization should have chosen for its annual meeting.

Reports from sixteen counties were made and funds were raised by applying to the state legislature for an appropriation in Sumter county. In several other counties individual subscriptions have contributed a sufficient fund for next year.

OHIO STATE MEDICAL ASSOCIATION

Sixty-fourth Annual Meeting, held at Cincinnati, May 5-7, 1909

(Concluded from page 1688)

A New Method of Gastroenterostomy

DR. EDWARD A. HAMILTON, Columbus: In doing this operation, a portion of the posterior wall of the stomach is pushed through the transverse mesocolon in the usual way and together with a loop of the jejunum is surrounded by an ordinary rubber catheter. The catheter is held firmly to the enclosed tissues by two rubber-sheathed hemostats to keep the parts from slipping through the rubber loop. A circular portion of the stomach wall and an oval part of the intestine are excised, these openings are then joined by a single suture of von Brun's linen inserted by the Connell method, which makes a firm and substantial union, bringing into the bite of each stitch all the coats of the bowel, so that leakage need not be feared. I have forced water under considerable pressure into the stomach and intestines so joined, and found that even in the cadaver this stitch makes a water-tight joint, and as peritoneal exudate occurs in the living in four hours so strong as to wall off liquids, the fear that one row of sutures may not be strong enough is groundless. There is nothing to prevent a reinforcing outside peritoneal layer of sutures if there is any fear that the line of union is not sufficiently firm.

Ocular Signs of Arteriosclerosis

DR. WILLIAM E. BRUNER, Cleveland: Study of the retinal vessels is important in ascertaining the condition of the general arterial system. Some of the ocular symptoms are: (1) Tortuosity of the retinal vessels; (2) irregularity in the caliber of the retinal arteries; (3) "silver-wire" appearance of the retinal arteries; (4) loss of translucency in the vessels; (5) compression of the veins by overlying arteries; (6) white lines along the vessels; (7) edema of the retina; (8) retinal hemorrhages; (9) thrombosis of the central retinal vein or some of its branches; (10) obstruction of the central artery or some of its branches; (11) spasm of the retinal artery; (12) lesions of the optic nerve, as congestion or edema of the nerves, retrobulbar neuritis and optic atrophy; (13) glaucoma; (14) paralysis of one or more of the ocular muscles; (15) lenticular opacities; (16) vitreous opacities; (17) subconjunctival hemorrhages; (18) asthenopia.

Submucous Incision for Reduction of Hypertrophied Turbinals

DR. C. P. LINHART, Columbus: The method of establishing a permanent reduction of hypertrophied turbinals is as yet an unsolved problem in nose surgery. Cautery and caustics are transient in their effect and have to be repeated. The removal of a section of the inferior turbinal destroys a part of an important functionating membrane, and, while it permits the passage of air through the nose, it does not give the anticipated improvement of the condition. The chief advantages of submucous incision is that it shrinks the vascular tissue of the turbinals, allowing free respiration of air through the nose; cutting across the walls of the venous sinuses causes their obliteration, and a permanent shrinkage results from the inflammatory adhesions; the base of the scar is on the turbinate bone, the seat of greatest traction; there is no destruction of mucous membrane, and no open wound to heal by granulation; it requires but a short time for surgical treatment (usually two or three days), and on account of no destruction of mucous membrane, there is no interference with the physiologic functions of the nose.

Radical Operation for Cancer of the Uterus

DR. J. H. JACOBSON, Toledo: The chief reason for the high primary mortality accompanying the radical abdominal operation for uterine cancer may be summed up in one word, "shock." The various factors concerned in its causation may be eliminated for the most part by the employment of spinal anesthesia, which I consider especially adapted for this operation. The afferent impulses or sensations can not be referred to the peripheral vasomotor centers and nerves, and thus produce shock. Spinal anesthesia may be said to be about as safe as chloroform, but more dangerous than ether. The roentgenologist should, if possible, witness the operation, in order that he may plan the after-treatment to the best advantage. About forty very thorough exposures are made in the after treatment with the *x*-ray. The points in favor of the postoperative *x*-ray treatments are: (1) The ray has shown that certain superficial forms of cancer are amenable to cure by its employment; (2) theoretically it would seem that if the pelvic structures could be technically rendered superficial, and directly accessible to the ray, the same results could be accomplished here as are obtained elsewhere; (3) the ordinary *x*-ray treatment of uterine cancer has heretofore been tried and proved a failure, but not so with postoperative treatment with the *x*-ray; (4) the technic, when properly applied, allows of direct treatment of every part of the pelvis, the dose can be easily regulated, and the tubular lead glass speculum, when properly directed to all parts of the vaginal fornix, permits of a systematic and thorough exposure in every direction; (5) cancer of the uterus does not have a tendency to metastasis into other organs as other forms of cancer; (6) it is now an established fact that recurrence after the vaginal operation for uterine cancer occurs in the vaginal cicatrix, whereas in the abdominal radical extirpation the recurrence is usually in the lymphatic glands of the pelvis. The main object of the paper is to emphasize the good results which are obtainable by the radical abdominal extirpation for uterine cancer and to make a plea for its more general employment; no other operation is comparable to this method; further, that spinal anesthesia greatly reduces the mortality, and that thorough systematic postoperative *x*-ray treatment can be effectively employed.

DISCUSSION

DR. H. G. SUTTON, Zanesville: I doubt the advisability of carrying out such extensive dissection of neighboring parts as would necessarily be required in the radical abdominal operation for uterine cancer advocated by Dr. Jacobson. I have met men with large experience, men of no mean ability in this country doing abdominal surgery, but they have never been able to satisfy me that they could diagnose uterine cancer by the microscope before it can be done macroscopically.

DR. R. B. HALL, Cincinnati: I do not think it right or just, or the best thing for the patient, to advocate this extensive dissection, enucleating all the glands by dissecting up the ureters, for carcinoma of the cervix, because the primary results following vaginal extirpation of the uterus are better and a larger percentage of the patients recover. High mortality attends the abdominal radical operation as compared with the low mortality attending the vaginal method of dealing with such cases. The ultimate results of this wide dissection are not so very much better regarding prevention of recurrence than vaginal extirpation. In almost all the patients there is recurrence and they die, no matter which operation is done.

DR. EDWARD RICKETTS, Cincinnati: In waiting until a cancerous nodule can be detected in the cervix or in the uterine walls, Dr. Jacobson in reality advocated a late operation, when the best results are to be obtained by early operation. But even at that I can not consistently advocate such wide and extensive dissections. I consider them beautiful from a scientific standpoint, but disastrous from a practical one. Some men get good results from the method of simple extirpation, while others get equally good results from the swallow tail operation as advocated by the late Dr. T. A. Reamy. Shock from the vaginal operation is far less severe than from the radical abdominal operation.

DR. GEORGE W. CRILE, Cleveland: Cancer of the uterus should be considered from the standpoint of each individual case. For instance, cancer of the fundus in its early stage is a curable disease. There ought to be a difference made in the prognosis as to the location of the growth as well as to the degree of its advancement. Cancer of the uterus, as a rule, gives a favorable prognosis, but like cancer of the breast, and elsewhere, the virulency of the disease itself can not be predicted. Sometimes a small cancer of the breast will be fol-

lowed by internal metastasis in a very short time, while a much larger growth in the same region may not show metastases at all. In late cases of uterine cancer I think simple curettement of the tumor mass the wiser procedure, but in those cases in which a radical operation is to be considered, the very large statistics available should lead us to give preference to the abdominal radical method rather than to the vaginal method. With the vaginal method there is more liability to force the cancer cells mechanically into adjoining tissues. With the radical abdominal method I have been able to obtain a three years' cure in about 24 per cent. of my operations.

Traumatisms of the Sacroiliac Joint and Their Sequelæ

Dr. Robert Carothers, Cincinnati: The sacroiliac joint is a true joint, known to be subject to the same diseases as other joints, and movable ordinarily in a slight degree. It is subject, therefore, to a wrench or sprain, a true luxation, or a relaxation or looseness. In the first cases, the symptoms are usually diagnosed as lumbago, on account of the pain and limitation of motion in the back; pain may be in the back, thigh or leg. A correct diagnosis is sometimes confirmed by an x-ray examination. The luxation cases are rare, and are produced by some violent injury to the lower portion of the spine. The relaxed or loose sacroiliac joint is the most common, the least often recognized and more lasting and difficult to treat. When these patients present themselves they are confirmed neurasthenics. A diagnosis is to be based on inspection, pain, limitation of motion, and mobility. Rectal examination will not infrequently elicit a tender point on either or both sacroiliac joints. It is to be differentiated from sciatica by absence of pain on pressure along the sciatic nerve and the presence of the signs enumerated. In the same way it is to be differentiated from lumbago by the absence of pain on pressure over the lumbar muscle, free motion of these muscles, and the presence of the signs of sacroiliac injury. In the mild cases, massage, properly directed exercises, stimulating baths and electricity often improve muscle tone and add materially to retention thereby of a relaxed joint. More severe cases require the application of some form of retention apparatus, and probably the simplest is the adhesive strap. When this fails a proper support of elastic webbing may be used. In extreme cases some mechanical brace will be necessary, which should be devised with special reference to holding the pelvis securely, grasping the trochanters and making some pressure on the sacrum; then extended on to the back and chest like any ordinary spinal brace.

Chronic Pancreatitis

Dr. Charles N. Smith, Toledo: Chronic pancreatitis presents two distinct pathologic and clinical pictures, depending on the location of the fibrosis. Thus we have the interlobular and the interacinar forms. In the first-named form, the islands of Langerhans are involved early, while in the last-named form they are involved late in the course of the disease. In the majority of instances the diagnosis of chronic pancreatitis is not impossible, nor is it difficult. In my experience, the Cammidge pancreatic reaction has proved a valuable and thoroughly reliable indication of the presence of pancreatic inflammation. As practically 80 per cent. of the cases of chronic pancreatitis occur as terminal and sequential events in gallstone disease, the relations between the common bile duct and the head of the pancreas, and between the common and the pancreatic ducts, as well as the methods of termination of these ducts in the duodenum, become of more than passing importance. Drainage of the biliary tract is the essential element in the cure of the pancreatitis and must be continued over a period sufficiently long to assure a decided abatement in, or disappearance of, the biliary infection. In mild cases temporary drainage is indicated. Such operations performed early are attended by a mortality of about 1 per cent.; performed late the mortality may reach 18.5 per cent. When the disease has been of long standing, permanent drainage is indicated, which is obtained by cholecystenterostomy. The intestinal site for the anastomosis should be in the duodenum, whenever possible, in order that the bile may enter the intestine and become mixed with the pancreatic fluid near the outlet of the stomach, as was Nature's intention and provision.

DISCUSSION

Dr. Frank E. Bunts, Cleveland: In two-thirds of all cases the common duct goes through the pancreas, while in one-third it goes under the pancreas, and the enlargement of the head of the pancreas pressing on the common duct accounts for the frequent occurrence of jaundice as a symptom of pancreatitis. In stone of the common duct, in a large percentage of cases, there is a small gall bladder with persistent jaundice, while a large gall bladder with persistent jaundice is in all probability due to a carcinomatous condition or to trouble in the pancreas. Of course, in obstruction of the cystic duct, there is enlarged gall bladder, but not ordinarily. Pancreatitis may be an accompaniment of alcoholism, syphilis or mumps, but it is usually then of an acute form, and not chronic, although in syphilis it may sometimes assume a chronic form.

Dr. Levisohn: The Cammidge reaction is of value and the profession should have recourse to it more frequently.

Dr. Brown, Toledo: I worked with Dr. Smith in his effort to study surgical cases of chronic pancreatitis, associated with biliary disease. I made 93 urinary examinations from 39 different individuals suffering from various ailments. Of the 39 patients, 10 gave positive and 39 negative reactions to the Cammidge test. The positive reactions were obtained from 7 patients with gallstones, from one case o. catarrhal duodenitis with occasional icterus, from one case of diabetes of pancreatic origin, and from one case of gastric ulcer with adhesions to the pancreas. Out of 17 cases of cholelithiasis 7 gave positive and 10 negative reactions. While my own observations have been limited, still the consistent results secured and their confirmation in 15 cases has convinced me that we have at our disposal one of the most valuable diagnostic aids that has recently been introduced into medicine. My experience in malignant conditions of the pancreas has been limited to two cases. In both the reaction was negative. Cammidge believes that the reaction in this condition is dependent on the presence or absence of any coexisting pancreatitis, which view is generally accepted.

Dr. J. H. Schroeder, Cincinnati: The cases resolve themselves into two classes: One in which there is no jaundice, but digestive disturbances, and no symptoms of gall-bladder disease; and the other, in which there are jaundice and symptoms of gall-bladder disease. When Cammidge first published his reaction in 1904, I followed it closely, and presented an analysis of 85 cases at the Chicago Session of the American Medical Association meeting last year. When the reaction was positive, it was usually in connection with gall-bladder disease. I obtained the reaction in one case of intestinal influenza and in one case of measles, but there was no jaundice and tenderness over the pancreatic region and no gastric disturbance. As a whole, I think the test a valuable one, but not pathognomonic.

Interilio-Abdominal Amputation

Dr. Joseph Ransohoff, Cincinnati: The patient in this case was a colored man, aged 45, who six years before his admission to the hospital, sustained a kick in the groin. Three years later an osteoma developed, which was removed. The patient returned to the hospital a year later with the wound opened and many sinuses leading to a tumor which involved the pan of the ilium and the upper end of the femur. The diagnosis of osteosarcoma was made. Although the patient was in a condition of chronic sepsis, an interilio-abdominal amputation was made March 8, 1909. Hemostasis was provided for by tying the common iliac artery. Owing to many sinuses on the outer side of the hip and gluteal regions, and the position of the tumor, a long internal flap operation was the only one feasible. The ilium was chiseled through from crest to sacrosciatic notch just in front of the synchondrosis, and the ramus of the pubes and ischium were chiseled through in the same way. At this time the fall of blood

pressure necessitated an intravenous injection. The operation was completed in forty-five minutes and the patient left the operating table in fair condition. With the varying symptoms of sepsis, the patient survived for thirty-nine days.

Other Papers Read

"The Technic of the Modern Radical Mastoid Operation, with Sinus Thrombosis Complications (stereopticon illustrations)," by Dr. Frank Allport, Chicago; "Further Observations on Bismuth and Other Paste Treatments in Suppurative Diseases of the Nose and Ear (stereopticon illustrations)," by Dr. Joseph C. Beck, Chicago; "Ophthalmia Neonatorum, from the Standpoint of an Obstetrician," by Dr. William E. Gillespie, Cincinnati; "Blindness in Hamilton County, with Special Reference to Ophthalmia Neonatorum," by Dr. Louis Stricker, Cincinnati.

ASSOCIATION OF AMERICAN PHYSICIANS

Twenty-fourth Annual Meeting, held at Washington, D. C., May 11-12, 1909

(Continued from page 1781)

Clinical Experiments with Homologous Vaccines in Septic Endocarditis and Pyemia

DR. W. GILMAN THOMPSON, New York: Following the method described by Wright, I have treated a series of seven patients with septic (streptococcal) endocarditis and one with pyemia with results which have again demonstrated its effectiveness. Three of the patients with septic endocarditis were cured, also the one with serious pyemia. In several other cases of septic endocarditis there was clinical evidence that the septic process had been completely controlled, although subsequently death ensued from such complications as tuberculosis or pneumonia, which as yet are beyond the influence of vaccine treatment. In several of the cases, polyvalent vaccines were employed, but without benefit, before homologous vaccines could be obtained, which latter subsequently proved effective. In fact, in no case in which the homologous vaccines were used was there failure to produce some degree of reaction, such as a downward temperature movement, and other indications of at least temporary betterment, and several patients who came under treatment after months of illness in a condition in which a fatal issue seemed imminent, gave evidence of an arrested progress of the disease for many weeks. The three patients with endocarditis who recovered had a type of the disease in which I have never previously seen recovery take place. The dosage of the vaccines used varied between 50,000,000 and 300,000,000 at intervals of two, three or four days, according to the circumstances of the case. There is much yet to learn about the dosage and the intervals.

A Study of Achylia Gastrica

DR. CHARLES G. STOCKTON, Buffalo: Achylia gastrica is defined by Einhorn as "A class of cases in which there is permanent absence of gastric secretion," and "in which clinically the diagnosis of atrophy of the gastric mucosa seems to be justifiable." He does not include cases depending on pernicious anemia. Apparently, this definition describes a result following a variety of causes. Hence, we are led to conceive of the condition not as a disease, but as the result of diseases. If this be true, I fail to understand why the condition when occurring in pernicious anemia should not be included. I have attempted to state in this paper some conclusions reached in the study of 132 cases. Some of these did not fall strictly within the definition above given. If, however, we are to form an opinion as to the causes leading up to achylia gastrica and of cases in the stage of development, then these cases should be included. I believe that it is wise to include them and to attempt the explanation of a pathologic change that is not very uncommon.

DISCUSSION

DR. THEODORE JANEWAY, New York: Our knowledge of the anatomic changes associated with disturbances of gastric secretion is very scant, because on account of the postmortem digestion which usually takes place the histologic examination of the stomach after death is attended with considerable difficulty. In the few cases of achylia gastrica which I have been fortunate enough to see come to autopsy, the presence of a true atrophic gastritis has been rather conspicuously absent. The two most striking groups of cases are those associated with pernicious anemia and those associated with certain types of persistent diarrhea. A number of persons coming especially from Cuba and South American countries have chronic diarrhea, and on careful examination they will be found to have achylia gastrica. These cases are the ones which offer most hope therapeutically. They respond admirably to the administration of hydrochloric acid.

Locomotor Ataxia and Paralysis Agitans in the Same Patient

DR. AUGUSTUS A. ESHNER, Philadelphia: Locomotor ataxia and paralysis agitans have little or nothing in common, etiologically, anatomico-pathologically or symptomatologically. Their associated occurrence in a given patient must, therefore, be looked on as a mere coincidence. While by no means rare, neither disease is common, and their association is correspondingly infrequent. Only a small number of cases have been placed on record in which both diseases have been present in the same patient. In my case, which occurred in an elderly man, the symptoms of paralysis agitans were observed while the patient was under treatment for locomotor ataxia, although members of the family stated that they had noted some shaking of the hands for many years.

Further Observations on the Third Heart Sound

DR. W. S. THAYER, Baltimore: During the past year I have examined 231 consecutive normal individuals in various places —schools, child's nursery, city jail, etc. In those individuals 65 per cent. under 40 years of age showed a characteristic third sound of greater or less intensity. In the first three decades of life the sound is the rule. It is apparently a normal sound in a large proportion of adolescents and young adults. Our studies rather tend to support the suggestion made by Dr. Hirschfelder, Dr. Gibson and myself independently that the sound is probably due to a slight tension of the mitral valves associated with the rapid filling of the ventricle. The sound is certainly coincident with the inrush of blood from the auricle into the ventricle. The diastolic galop is present in the majority of individuals under 30, in the recumbent and left lateral postures, and is not, *per se*, a pathologic manifestation.

DISCUSSION

DR. JAMES L. WILSON, Philadelphia: Students of cardiac diseases must have been since the time of Laennec more or less incompetent as regards their hearing to have overlooked this sound until recently when our attention was called to it. In a considerable number of instances I have recognized the third sound under circumstances in which the possibility of my having overlooked it up until recently could scarcely have occurred. Of course, I have recognized the first element of the diastolic galop rhythm very often, but while this occupied the time of the third sound as now observed, that this could under any circumstances have been a normal sound had never occurred to me. The subject is certainly one which deserves very systematic clinical investigation, and in which the correlation of the clinical observations and postmortem observations should be systematically made whenever practicable. The idea of the occurrence of a third sound of the heart under normal circumstances, after nearly a century of clinical study of the heart by physical diagnosis, comes with overwhelming force, and impresses on us the fact that we have to have things pointed out to us from day to day before we understand them.

Normal Auscultatory Differences Between the Sides of the Chest

DR. RICHARD C. CABOT, Boston: If we study the slightest auscultatory differences in different portions of the chest, we will have to recognize not merely that there is a difference

ween the two apices, but very frequently a difference between the two bases. I recently went over 250 chests that were normal so far as I could find. In 64 per cent. of those cases there was a difference between the two bases, and substantially the same difference. At the left base behind the breathing in these 64 per cent. of cases was harsher, rougher and slightly louder than at the other base. It was almost exactly what the Germans call rough breathing, as compared with the smoother, gentler breathing at the other base. It is only of importance in that it should modify slightly what we otherwise might take as a pathologic sign in the same way that our attention to signs at the right apex always has to be slightly modified by our knowledge of the physiologic conditions there. The other point to which I wish to call attention is not new, but I am convinced sufficient attention has not been paid to it. We have all of us known for a long time that it is unwise to examine patients in the lateral posture, because the sounds of the two sides of the chest are modified very much by the lateral decubitus. In 50 chests which I examined, the results were practically identical and precisely what we should suppose from the physical conditions. Lying on the side diminishes the excursions of that side of the chest and increases the density of the lung. On palpation we get a slightly increased fremitus; percussion shows a slight dulness combined with tympany; on auscultation we get a slight increase of the whispered and spoken voice, a slight prolongation of expiration and a slight increase in its intensity.

DISCUSSION

Dr. W. S. Thayer, Baltimore: In a good many cases, particularly in febrile diseases, one hears numerous crisp râles on the recumbent side of the chest, while on the side of the chest which is up there are no similar sounds. If the patient is changed from side to side the râles entirely disappear, and not infrequently appear on the other side of the chest. It is familiar enough to most of us that fine, crisp râles occur with the expansion of the thin borders of the lung in various parts of the chest. I have not infrequently seen the attention of clinicians attracted to râles which were heard in the axilla. If the individual is lying on his back and turns on one side the râles will entirely disappear in a large proportion of cases. If we percuss the lung at the same time, we will find that it has come down two or three fingers' breadth, and with the filling up of that portion of the lungs the râles disappear. I know of at least one patient who was sent to the mountains with a diagnosis of tuberculosis based solely on a manifestation which is really not abnormal nor uncommon.

Orthodiagraphy in the Study of the Heart and Great Vessels

Drs. Thomas A. Claytor and Walter H. Merrill, Washington, D. C.: From our experience with the orthodiagraph we draw the following conclusions: While orthodiagraphy should not be looked on in any way as a substitute for the other well-known methods of examination of the heart and great vessels, it is, at the same time, a valuable aid. It can be used to make fairly accurate outlines and measurements of the heart and great vessels, thus enabling us to make comparisons with the normal and subsequent diagrams of the same case. The use of the instrument may also serve to prove that the size of the heart is not influenced to any appreciable degree by a single effort of exertion, or by a single therapeutic or gymnastic treatment.

(To be continued)

MISSISSIPPI STATE MEDICAL SOCIETY

Forty-second Annual Meeting, held at Jackson, April 13, 1909

(Concluded from page 1689)

Errors of Refraction and Results to Be Expected from Their Correction

Dr. W. S. Sims, Jackson, maintained that the fitting of glasses should not be left to the optician or to the optometrist. In young subjects the work should be done with the eyes under the influence of some reliable cycloplegic. Glasses would be found beneficial in reviewing poor vision, headaches, certain forms of conjunctivitis, vertigo and nausea after long use of the eyes, but of little or no benefit in migraine, chorea or epilepsy.

DISCUSSION

Dr. H. Flowers, Brookhaven: Though the general practitioner is not expected to understand the various complications of the eye, he should know more than he does on the subject, and should at least warn his patients against the opticians who call themselves doctors. They know nothing about the eye, do not use atropin, and can not refract. They frequently put glasses on people whom a specialist would relieve by treatment. Again, they put glasses on which positively injure the eye. Therefore, the general practitioner would do a great deal of good by advising his patient against these opticians, and referring them to some competent specialist, if it is a trouble he can not treat himself.

Dr. Williams: When the eyes are constantly breaking out with styes, the lids become inflamed, and the patient complains of burning of the lids and watery eyes, it is safe to say that that patient has an error of refraction, and if that error is properly corrected, good results will follow. When the general practitioner sees these cases, he should advise his patient to go to a specialist and have this trouble corrected at once.

Dr. E. A. Clark, Arcola: In small places opticians are particularly annoying. I have had some very disagreeable experiences with them, and think that physicians should warn their patients against them.

Dr. Turner: After I left college it did not take me long to find out that I did not know anything about the eye, and I am still of that opinion. I made it a point to send my patients to a reliable specialist when I discovered anything wrong with the eyes. I have had a number of disagreeable experiences with men who called themselves "Doctor." One came to my town and tried to prevail on my clerk to buy his outfit, promising him that he would stay there two weeks, and at the end of that time, he would have made a first-class oculist out of him. I cite this case to show how necessary it is to put a stop to these men going about misrepresenting facts, and doing a lot of harm.

Dr. Hamilton, Schlater: I wish to call attention to the reflex nervous symptoms from strain of the ciliary muscle, causing headache and nausea. This can frequently be relieved by wearing glasses, but I believe that a great many cases of eyestrain can be relieved by a dose of calomel.

The Relation of the Specialist to the General Physician

Dr. D. G. Mohler, Gulfport, contended that the specialist should limit his work strictly. He must observe ethics and never lose sight of the rights of the general physician. The specialist and general physician should work in harmony in all cases and can give each other great help in the diagnosis and treatment of many obscure cases.

DISCUSSION

Dr. W. B. Dobson, Jackson: The general practitioner and the specialist should work together for the best interests of their patients. I have heard some general practitioners say that they felt perfectly competent to treat the eye, and why should they send their patients away when they could treat them. When the specialist discovers that his patient is suffering from some physical trouble, not in his line, he sends him to his family physician for treatment, then why should not the general practitioner give the specialist the same courtesy. The best interest of the patient can only be obtained in that way. In twenty-five years from now we will see the general practitioner only in small towns and villages; each physician will be a specialist along some line, such as lungs, stomach, eye, etc.

Dr. M. Alexander, Tunica: Most cases of eye troubles came under the notice of the general practitioner first, and he should know whether he is able to treat those cases or not. If he feels that he can not treat a patient successfully he should send him to a specialist.

DR. J. A. ROWAN, Wesson: No man is competent to be a specialist, unless he has first been a general practitioner. He should certainly have a general knowledge of the practice of medicine. I desire to endorse what Dr. Hamilton said in regard to a dose of calomel helping the vision in some cases. When one is bilious the sight certainly becomes dimmer, and a dose of calomel will certainly clear the vision in these cases.

DR. J. T. H. POSEY, Enterprise: Recently a physician referred to himself as being loaded with junk, and I want to say that this junk is very necessary to the country physician who is miles away from a city, and who certainly should know something about treating the eye. Most country patients are not able to go to a specialist, and in simple eye trouble the physician should know what to do for his patient. He should also know when he meets an eye trouble that he does not understand.

A Plea for the Proper Treatment of the Cross-Eyed Child

DR. M. H. BELL, Vicksburg, said that speaking only of esotropia, glasses should be fitted as early as posible and treatment should not be delayed trusting that the patient will outgrow the trouble or while waiting to have an operation done later. The family physician is the one who sees these cases at a time when proper treatment offers much hope and he should give them more attention.

DISCUSSION

DR. H. FLOWERS, Brookhaven: When a child squints it is very unwise to wait until that child is 6 or 7 years of age to correct the squint. I consider it most important to see that that child uses both eyes. When a child only sees with one eye, by the time it has reached the age of 6 or 7 years it will have lost the vision in the eye it did not use. To force the child to use both eyes, the eye the child uses should be rendered useless with atropin, and it will have to use the other eye. An examination should be made every few weeks, and the child should be kept using first one eye and then the other. It is not usually satisfactory to put glasses on a child 2 or 3 years of age, but it can be done if necessary.

DR. WILLIAMS, Jackson: I do not agree with Dr. Flower in regard to the child with the alternating squint. I think that such a child should have attention at once. Glasses can even be tied on. The general practitioner should not lose sight of this fact, as they are looked to for advice on these matters, and they should tell parents that this condition can be relieved, and at once, and thus save a child from going through life with one eye looking in one direction and the other looking in another direction. By urging on the parents the necessity of having this trouble attended to at once, the general practitioner can do an enormous amount of good.

DR. KENNEDY: My experience has been that glasses are of very little advantage. In my youth I was very cross-eyed and glasses were tried. I stood them as long as I could, but they caused me such suffering they had to be discarded. In after years, when I began the study of medicine, I gave this trouble close attention and again tried glasses, without success. Finally, I went to Memphis, where an operation was performed, but I was then too old for it to do much good; it relieved me, however, and put me in condition where I could wear glasses. Therefore, I would recommend that a child be operated on at once.

DR. BRISTER, Greenwood: What does Dr. Bell consider the best age to operate on a child?

DR. BELL: It is my practice to let the other man do the operating. In reply to Dr. Kennedy, I would say that I do not think he will find many specialists who would operate without first treating with glasses.

Quinin Amaurosis

DR. J. B. ELLIOTT, JR., New Orleans, reported two cases of quinin amaurosis. In the first 690 grains had been given in ten days, part by needle and part by mouth, and in the second 410 grains in eight days. These were contrasted with a case of pernicious malaria controlled by 280 grains in eight days. The object in presenting the cases, as stated by the author, was to bring up a discussion as to the frequency of quinin amaurosis and more especially to get the views of the members of the association as to the maximum dose of quinin to be used in pernicious malaria.

DISCUSSION

DR. H. L. SUTHERLAND, Rosedale: I have lived in a malarial district for thirty-six years and have never had a case of quinin amaurosis. This is probably due to the fact that I do not advocate giving such heroic doses of quinin in malaria; I see no use in giving such enormous doses. I can accomplish just as much good by giving from 20 to 30 grains a day to the average adult. In lobar pneumonia, I have given 60 grains in a space of ten hours, and repeated the dose in twenty-four hours, and also have given doses of that size in some forms of puerperal fever, but not in malaria. I have never seen a case of malarial fever that 30 grains of quinin daily, for four days, would not cure, but I never gave it more than four days in succession, for if the fever still continued, I looked around for another diagnosis.

DR. FRIZELL: Does Dr. Elliott give quinin by enema or by needle?

DR. LONGINO: What solution is necessary to saturate the blood and kill the more persistent parasites?

DR. ELLIOTT: I give the quinin by the needle. Administered by mouth and through the bowels it is not always absorbed. In a case of a man on whom a postmortem examination was made, forty-eight 5 gr. pills were found in the bowels. That man died with his bowels full of quinin and his blood empty of quinin. A solution of 1 to 5000 will destroy persistent parasites.

Uncinariasis and Its Relation to State Medicine

DR. J. A. MCCOY, Picayune, discussed the prevalence of uncinariasis in south Mississippi. The disease was much more common than was generally supposed. He described two cases he had seen that terminated fatally on account of complications—the second, a girl of 8 who had developed an abnormal appetite, going to autopsy. There was found in the stomach a matted mass of human hair. He summarized his article as follows: "Uncinariasis is the most prevalent chronic disease existing in south Mississippi; it retards mental and physical development of all affected persons; it is a curable disease, also preventable; it exists principally among the poorer people of rural districts who are not able to pay for treatment, therefore the state should provide means whereby it may be eradicated."

A State Bacteriologic Laboratory

DR. W. S. LEATHERS, University, described the uses of a state bacteriologic or hygienic laboratory and considered the reasons why the physicians of Mississippi have failed so pitiably in their efforts to secure legislation.

What Bacteriology Has Done for Medicine and Some of the Handicaps to Its Study

DR. G. H. WOOD, Batesville, enumerated some of the benefits conferred on medicine by bacteriology, advocated the necessity for a public, state laboratory and blamed the medical fraternity for the absence of one in Mississippi.

Discussion on Bacteriologic Laboratory

DR. S. L. BRISTER, Greenwood: Though I am not a bacteriologist I fully appreciate the benefits the general practitioner derives from bacteriology. In any tuberculous trouble the bacteriologist comes to the assistance of the physician most materially. I am in favor of some effort being made to get the legislature to make an appropriation sufficient to establish a state laboratory in Mississippi.

DR. W. STEPHENSON, Lauderdale: Every effort should be made to secure a state laboratory, but while waiting for this laboratory I wish to call attention to what is being done in east Mississippi. Through the activity of Dr. Buchanan the

physicians there have obtained an appropriation from the legislature to build and equip a modern laboratory. It is large, and has every convenience for making examinations. They intend to get out a little book on the subject of how to send specimens, how to prepare specimens of blood, and how to preserve specimens for examination.

Dr. J. B. Bullitt, University: Every effort should be made to establish a state laboratory, but the physicians should also be fitted to make examinations himself. The majority of physicians do not know how to make the simplest examinations. They would then acquire a deeper interest in securing a state laboratory. It is astonishing how careless many physicians are in sending specimens to be examined. Some wrap the tissue to be examined, in a piece of paper, stuff it in the pocket, and in the course of time send it on to be examined; or they drop the blood on the center of the slide, and then stir it up, and are much astonished when the bacteriologist sends word that it is impossible to make an examination of the specimen sent. The establishment of a laboratory would at least enable the physician to learn how to send the specimens to be examined, even if he never attempts to make an examination himself.

Dr. H. L. Sutherland, Rosedale: It is necessary to make some effort to get the legislature to pass an act authorizing the establishment of a state laboratory, but to do so it is necessary to have literature for distribution among the legislators, and such papers as these that have been read should be printed in such form as to distribute to the legislators when they next meet in Jackson.

Dr. S. W. Scales, Starkville: With a microscope and a simple course of study, the physician would soon learn to make a few examinations for himself. I am glad that Dr. Stephenson has called attention to the work being done in Meridian.

he Prevalence, Prophylaxis and Economic Importance of Tuberculosis

Dr. J. M. Alford, Ellisville, considered tuberculosis from the standpoint of its prevalence, prophylaxis and economic importance. The scourge was everywhere, it might be prevented and ultimately eradicated. Its cost to the community and nation, both in loss of lives that had an economic value and in cost of caring for tubercular invalids, was exceedingly great.

DISCUSSION

Dr. H. L. Sutherland, Rosedale: This plan of educating the people on the prevention of a disease, which is known to be preventable, is necessary. There is a law requiring a physician to report all these cases to the state board of health, and the physician who fails to do so commits a great wrong. Though something of a pessimist in regard to the treating of tuberculosis in the negro, in one instance I treated successfully a tuberculous negro—a very intelligent negro boy. At first I thought of sending him to New Mexico. I gave him a copy of the *Mississippi Medical Journal*, containing an article on tuberculosis and told him to read it carefully and to follow out the line of treatment laid down in it. He was then having high temperature, night sweats, and cough. He persisted in the diet of sweet milk, raw eggs, etc., combined with perfect rest and sleeping outdoors. The results were better than I could have expected. When I saw this man in October, had I not known the history of his case, I would have passed him for life insurance. If the people could only be reached with such literature as that article, instead of all this "patent-medicine" literature, while it might result in no good to some, it might be the means of saving the lives of a good many.

Dr. Rosamond, Memphis, Tenn.: I think it is time that the physician recognized the importance of being able to diagnose tuberculosis in its incipiency. I also think that the time is coming when it will be required that every child should be inoculated with tuberculin. Everyone should learn more about tuberculin and its possibilities and more about the exact diagnosis of incipient tuberculosis, and when they do this they will strike at the root of the trouble.

Dr. J. Rowan, Wesson: Every disease that is stamped out is stamped out by isolation—yellow fever, smallpox, diphtheria, etc. How can tuberculosis be stamped out otherwise? And this can only be done by prohibiting the marriage of consumptives.

Dr. Jones: The people of the South suffer through tuberculosis in the negro more than do the northern cities. It is no uncommon thing for negro nurses, employed by society people, to be sent to be treated for tuberculosis while holding little white children in their arms. It behooves the South to direct particular attention to this class of consumptives and to protect its little children from such a menace.

Dr. Holder, Memphis, Tenn.: One form of tuberculosis that has not been discussed is tuberculosis of the bones and joints. The little child will complain of pains in its knees and the mother will think that it has growing pains. He will begin to limp and to cry out in his sleep, and there is just a little rigidity of the muscles of the thigh, and that child will develop tuberculosis of the hip joint. If this trouble can be diagnosed in time, the pressure taken off, the child given the proper diet, plenty of outdoor air and moderate exercise, he may get well. Let it alone until the second and third stages, no power on earth can save bones and joints from total destruction. The treatment of tuberculosis of the joints and bones is the same as tuberculosis of the lungs. We do not contract this disease in the day time; it is in the darkness of the night, shut up in ill-ventilated rooms. A law should be passed appointing health inspectors of all public buildings, theaters, churches and all public places, and every private house hould have an open-air chamber, where the child should sleep. People should not wait until they have tuberculosis to begin to fight it, but prevent it by living sensibly.

Dr. J. M. Alford: The question of legal prohibition of the intermarrying of consumptives is a very serious one. If the trouble is diagnosed in its incipient stage, there is no need of such a prohibition. But who shall say at what stage it shall stop? I do not think that it would be wise legally to prohibit the individual with incipient tuberculosis from marrying.

Other Papers Read

The following papers were also read: "Some Valuable Medicinal Agents in Diseases of Women," by Dr. W. A. Carnes, Kosciusko; "Some Neglected Gynecologic Disorders," by L. C. Feemster, Nettleton; "Report of a Case of Extrauterine Pregnancy," by Dr. J. C. Armstrong, Water Valley; "Some of the Nervous and Mental Arrangements of Alcoholics," by Dr. J. A. Tullos, Raleigh; "Hereditary Syphilis as an Etiologic Factor in Dementia Præcox," by Dr. M. J. Ferguson, Jackson; "The Prophylaxis of Insanity," by Dr. J. M. Buchanan, Meridian; "Disturbances of the Organs of Generation as a Causative Factor in Insanity," by Dr. A. E. Kennedy, Magee; "Criminal Irresponsibility," by Dr. E. L. Green, Carpenter; "The Diagnosis of Labor," by Dr. A. L. Chapman, Lyon; "Electricity as a Therapeutic Agent in Gynecology," by Dr. Rosa Wiss, Meridian; "Typhoid Fever in Infancy and Childhood, with Analysis of Eighty Cases," by Dr. W. W. Butterworth, New Orleans; "Our Hygienic Duty," by Dr. C. S. Pettus, El Dorado, Ark.

ILLINOIS STATE MEDICAL SOCIETY

Fifty-Ninth Annual Meeting, Held at Quincy, May 18-20, 1909

The President, Dr. J. W. Pettit, Ottawa, in the Chair

An address of welcome was delivered by Dr. R. J. Christie, Quincy, which was responded to by President Pettit.

Serum Treatment of Epidemic Cerebrospinal Meningitis

Dr. Frank Spooner Churchill, Chicago: I have been able to watch the effect of the serum in 41 cases of meningitis, 29 of which were proved to be of the meningococcic type. Of these 29 patients, 16 recovered, 13 died, a mortality of 44 per cent. Closer analysis of the series showed that of 15 patients receiving the serum within the first week, 6, or 37 per cent., died. Of these 6 cases, 3 were fulminating cases, and the patient died within the first two days. The fourth patient was a bartender, aged 43, and the other two were not closely followed up,

but received each only one dose of the serum. The following conclusions were reached: 1. In all cases clinically suggesting meningitis, a lumbar puncture should be done as early as possible. 2. If the fluid thus obtained be turbid, at least 30 c.c. of Flexner's serum should be injected directly into the spinal canal without waiting to hear the bacteriologic report of the fluid. 3. The spinal fluid should be examined bacteriologically. Smears are more important than cultures. If the diplococcus intracellularis be found, the injections should be repeated daily for the three or four following days. In severe cases the second dose should be given twelve hours after the first. 4. After the first series of doses, two or three days should be allowed to elapse, and then, if necessary, the series repeated. 5. The serum is a specific and of value in meningococcic meningitis only. 6. It is useless to give the serum subcutaneously.

DISCUSSION.

DR. S. E. MUNSON, Springfield: Through the courtesy of Dr. Churchill, I had the privilege of using the Flexner serum in two or three cases of cerebrospinal meningitis. One of the patients was moribund at the time the serum was injected, and died within an hour or two afterward. I speak of this as being a case of cerebrospinal meningitis owing to the character of the spinal fluid and the differential cell count, particularly as to turbidity, etc. A second case I saw with another physician who had called me to administer the serum, and it was clear from the history of the case that it was one of tuberculous meningitis, and on spinal puncture the fluid was perfectly clear. After the serum had been used for some twelve hours a fine coagulum was found, and on removing fluid and staining for tubercle bacilli, they were found in numerous quantities. A third case was one of cerebrospinal meningitis. This patient received the serum at about 3 o'clock in the afternoon of the fifth day of the disease, and about midnight the temperature became normal, with profuse sweating, and after that time there was no rise in temperature. This patient, a child, rapidly improved, and in six weeks' time returned to school again, having fully recovered. It was as severe a type of fulminating cerebrospinal meningitis as I have ever observed.

DR. FRANK BILLINGS, Chicago: Anyone who has seen these meningitis patients treated by old methods, as, for instance, by drugs or hygienic means alone, will be struck with the specificity of this treatment when they have had some experience with it. I want to relate briefly two cases to show how quickly the disease manifests itself. A little over a year ago a Greek, between 20 and 30 years of age, was brought in from South Chicago. He was so nearly unconscious that he recognized nothing. He was unable to speak English, but manifested the site of pain by placing his hand at his head. His muscles were all rigid. There was opisthotonos. Spinal puncture was made and turbid fluid obtained, which showed the meningococcus. Serum was immediately injected, and within twelve hours of that time this young man sat up in bed, and indicated by his motions that pain was gone. The muscles were less rigid. He was given subsequent injections and steadily improved until recovery ensued. A patient now in the Presbyterian Hospital, Chicago, a man of 26, twenty-four hours before admission, was taken with violent headache. When brought in he was semiconscious; his muscles were rigid; his head retracted; his belly scaphoid, and the right external rectus muscle paralyzed. Immediately spinal puncture was made and some fluid obtained. No serum was on hand at the time, but that night 30 c.c. were injected. His symptoms were not much relieved by morning, and again a second spinal puncture was made, and over 30 c.c. of spinal fluid was withdrawn. The next day, again, about 40 c.c. of fluid were withdrawn from the spinal cord, and 45 c.c. of serum injected. By this time the man showed great improvement. Paralysis of the right external rectus had diminished very much. He was conscious; talked in broken English, and expressed himself as feeling of the He still had some headache and stiffness of the muscles is tru neck. Since that time he has had injections every curred five days. After the last injection his temperature was most and found to be 99 F., and pulse below 90. His respira- culo were normal. Still he showed rigidity of the neck ex les, and some rigidity of the erector spinæ muscles, and rigidity of the hamstring muscles is still present. Otherwise he seems to be much better. The remarkable thing was the effect of the leucocytes in the blood and in the spinal canal. When he entered the hospital, his white blood count was 23,000. After the first injection it fell to 2,000. By the next day it went to 32,000, and then fell steadily. The spinal canal fluid contained 13,000 plus white cells per cubic millimeter when he came in. This patient will undoubtedly make a good recovery.

DR. JOHN M. DODSON, Chicago: I believe we shall do better, in the present status of the serum, if we establish the diagnosis before we make an injection of the serum. I am not at all certain that the use of the serum is absolutely unattended with unpleasant results. In one of the cases cited by Dr. Billings, after one or two injections, a skin eruption was noticed. In one case last autumn one of my assistants injected the Flexner serum in a case of tuberculous meningitis, and the injection was followed by a distinct intensification of the symptoms.

The Surgical Treatment of Appendicitis

DR. CLIFFORD U. COLLINS, Peoria: 1. The best time to remove an inflamed appendix is during the first thirty-six hours of the attack, before it becomes perforated. 2. The physician who does not see or hear from his patient for twenty-four hours after his first visit in a case of suspected appendicitis is not doing his full duty to his patient. 3. After the appendix has become perforated, the patient will do better if its removal is deferred and he is placed on his right side with the head of the bed elevated and treated according to the principles of the Ochsner treatment, with the Murphy method of continuous rectal saline infusion. 4. After the appendicitis or the succeeding peritonitis has subsided, the appendix may then be removed more safely. 5. If a localized abscess forms, the pus should be evacuated under nitrous-oxid-gas anesthesia. 6. As soon thereafter as the pulse and temperature have remained normal for one week the appendix may be safely removed.

DISCUSSION.

DR. A. J. OCHSNER, Chicago: The most important point in the surgical treatment of appendicitis is the diagnosis. It is inexcusable to leave a patient, who has an acute intra-abdominal condition, without a diagnosis having been made for twenty-four hours, we will say, to give him something for the pain, and then make the diagnosis the next day. I believe that that is the primary cause of the still high mortality in the treatment of this disease. If a patient receives a careful physical examination at first, then it is likely that this examination will result in a positive diagnosis provided an acute appendicitis is present. If this is not possible, nothing should be given that may interfere with making the diagnosis. I agree that opiates should never be given, and that if anything is given at all, it should be in the form of a placebo until the diagnosis is made. Opium should never be given to a patient suffering from any intra-abdominal condition until the diagnosis has been made and until gastric lavage has been resorted to. After the diagnosis has been made, treatment should be instituted.

DR. CHRISTOPHER GRAHAM, Rochester, Minn.: If a patient presents himself early and a diagnosis of appendicitis is made, the appendix should be taken out early, and that is the practice of St. Mary's Hospital, Rochester. This country is full of surgeons of two classes. To the one class it is safe and sound to send our patients. Then there are others, called surgeons, whose judgment is not so ripe and whose skill is not so great. There is much in the judgment of the physician or surgeon as to when the operation should be done.

DR. JOHN B. DEAVER, Philadelphia: I believe in the early application of the scalpel in the treatment of appendicitis. Opium and salts should be relegated to the past. They have no place in the modern treatment of appendicitis. McBurney pointed out a number of years ago that there was but one treatment for appendicitis—the knife, and I can only reiterate the statement of that magnificent man, that pathfinder.

DR. CARL E. BLACK, Jacksonville: In the country we have to contend with the timidity which still exists among general practitioners. We must try to overcome this. General prac-

titioners still wait and wait to find out what is the matter when they ought to know the true nature of the case in a short time. The crux of the whole matter consists of early and prompt diagnosis and early operation.

Dr. M. L. Harris, Chicago: One of the most pernicious practices which is prevalent to-day is the administration of catharties. A patient with a pain in the belly should never under any circumstances be given a cathartic of any kind or description until it is absolutely certain that he or she, as the case may be, is not suffering from appendicitis or from any other intra-abdominal condition which is going to produce or may produce a peritonitis. Another most pernicious teaching which has been promulgated is an attempt to divide cases of appendicitis into those of so many hours and so many days. There is no condition in the abdomen which is so variable in its manifestations as that of appendicitis. I have seen a patient with appendicitis die within twelve hours from the first symptom. Another patient may go from ten to twelve days without serious symptoms being present. There is no such a thing as being able to divide cases of appendicitis into twenty-four or thirty-six hours, or three or five days. There is no trouble in telling what to do in appendicitis in those cases that are distinct and unmistakable. When the diagnosis is clear, operate. The question of abscess formation does not enter into consideration. If there is an acute appendicitis, get at the appendix if you can before the infection has extended beyond the appendix. If you can not get it out at once, do so just as soon as you have an opportunity.

Dr. Frank Billings, Chicago: Diagnosis is important. It is up to the surgeon to say when to operate after a diagnosis has been made. One phase of the disease is seen by medical men alone, namely, general conditions that are produced by chronic appendicitis. I thoroughly agree with Dr. Graham that an appendix which interferes with digestion with the constant absorption due to the disturbed metabolism produces general changes of a degenerative nature; hence the reason for removing the local infecting point and saving the patient from the chronic changes. I recall the case of a patient, a man of 55, who had chronic appendicitis with severe angina pectoris. He was greatly improved, and had no further attacks after the removal of the appendix. There was more than an immediate reason for the removal of the appendix.

The Value of Diabetic and Prepared Foods

Dr. R. T. Woodyatt, Chicago: The objects for which prepared foods are theoretically intended are the nutrition of those who for some reason are handicapped in their power to get sustenance from foods ordinarily available. The selection of a prepared food depends on the nature of the case. The fundamental requirements, which a suitable food must fulfill and on which any individual foods are to be judged are its content of matters capable of yielding energy in the body—fuel value; its digestibility; its availibility, which includes steady market supply and price. The prepared foods now on the market are considered specifically in accordance with the foregoing principles under two main groups, namely, convalescent, invalid and infant foods, and diabetic foods. The essence of dietetic treatment in diabetes, save in very severe cases, is the limitation of carbohydrate food. The craving for bread based on the cry of the tissues for sugar is best ameliorated by improving the tolerance of the body for sugars. Breads which satisfy this craving contain starch. Bread without starch is a paradox. The legitimate uses to which substitutes for bread may be put are the supply of a vehicle on which bread, cheese, etc., may be spread and which "bites" like bread; the supply of a greater variety of forms in which a patient may take his non-carbohydrate fare. There is a great tendency among physicians to prescribe gluten flours *ad libitum*. Free use of all except a very few diabetic flours leads to a high aggregate of starch ingestion *per diem* at high price and in spite of restrictions on the use of the common amylaceous foods.

DISCUSSION.

Dr. James B. Herrick, Chicago: I think all of us are inclined to be more or less careless in paying attention to the proper diet for adults, and while many illnesses do not need very careful and strict attention to diet, general directions being sufficient, all of us make mistakes in not being explicit in telling patients what to eat and what not to eat, and we all err, I think, if not in prescribing, at least in allowing to be prescribed or to be used many of these so-called prepared foods without knowing their nutrient value. Many of these foods are not what they are claimed to be, and when we think we are giving patients nourishing food we are perhaps giving little better than nothing. In diabetes the diet is all-important. The more one sees of this disease, the more he feels that there is a certain group of cases in which, in spite of the utmost care as to diet, fatal results will follow.

Dr. Arthur R. Elliott, Chicago: It is hard to kill a therapeutic fallacy once it has become established in the minds of the profession, and nowhere is this more emphatically demonstrated than in the fallacy of diabetic foods, this fallacy persisting in spite of the emphasis and the repetition with which the fraud of the so-called gluten breads has been shown by chemical analyses. The mistakes made in the care of the diabetic by many physicians are the administration of specific medication and the employment of gluten flours. Seldom does the internist see a case of diabetes that has not been permitted the use of gluten bread without any specific restriction as to the quantity. The objection to gluten bread does not consist so much in the fact that it contains carbohydrates, because every diabetic must receive a certain amount of carbohydrates. The error in giving gluten flour is that its administration is not restricted, so that we know how much carbohydrate the patient is securing. A much better end can be secured by employing honest bakers' bread, the carbohydrate content of which we know, and the quantity of which we can restrict within certain definite boundaries.

Dr. Frank Billings, Chicago: I am glad that Dr. Woodyatt has shown us the absence of food value from many of the liquid beef extracts. I wish he had gone on and shown us something of the want of value of the ordinary beef, chicken, veal and other broths so commonly used in the sickroom. Nearly twenty years ago, Fothergill called attention to the fact that by chemical analysis the ordinary beef extract as used at that time in the sickroom was nothing more than concentrated urine. It had no nutritive food value whatever. The fact of the matter is that these things have less food value than some urine. Diabetic urine would be far better food than many of these extracts. Not only that, but these extracts are frequently poisonous. How many times do we find in the sickroom beef extracts used in conditions in which the excretory organs of the individuals are not throwing out their own waste, and we are increasing the purin bodies in the bodies of those individuals by the use of such things.

Dr. Frank S. Churchill, Chicago: So far as the feeding of babies is concerned, we have learned to be accurate in this matter, and all the extracts that have been referred to by Dr. Woodyatt have been thrown out of the window. We rely on taking a milk which we know is as clean as possible, and with that milk prepare a food for the individual baby adapted to its digestive powers so far as fat digestive capacity, sugar digestive capacity, and proteid digestive capacity are concerned.

Dr. Charles S. Williamson, Chicago: I wish to emphasize the point that the various extractives have slight nutritive value. Not only are some of them worthless, but they are exceedingly toxic, as demonstrated by experiments. They have injurious effects, both on the cardiovascular system and heart, and these are points which should not be lost sight of in considering the acute infections.

The Responsibility of the State in the Care of the Mentally Deficient and Insane Dependents

Dr. Frank Billings, Chicago: This paper deals with a statement of the condition of the mentally deficient and insane dependents in the state hospitals for the insane, the sc[illegible] the feeble-minded, and in the various county almshou[illegible] attempt is made to show that the true economy in the [illegible] these patients may mean, in the beginning, the expend[illegible] a greater amount of money, but that the final result wil[illegible] saving to the state. Physicians have much responsibility

these matters, especially in the recognition of deficient mental states and of acute insanity and the proper method of managing this class of people.

Early Pulmonary Tuberculosis Treated by Different Tuberculins

DR. E. H. BUTTERFIELD, Ottawa: Tubercle bacilli of the human and of the bovine types have been identified in man. The bovine type is more common in children than in adults. I report briefly a series of 23 cases of early phthisis in which the bovine tuberculin was administered. The other series comprises 8 incipient cases in which Koch's bacillus emulsion was administered, and 17 incipient cases in which tuberculin was not used. My conclusions are: 1. In view of the results obtained in this series of cases and from observation of cases now under treatment, I am convinced that a tuberculin prepared from bovine sources has a marked and healing effect in tuberculosis of the lungs. Experience teaches that there is frequently a marked disproportion between the physical signs and the general condition of the patient. Many with slight activity of the tuberculous process and with slight lesions, in the presence of other virulent micro-organisms, have been forced to an irresistible decline. These are not suitable cases for the administration of tuberculin, and although there is some uncertainty in the action of the autogenetic vaccines, the desperate character of the cases to which these are given is a justification for their employment. 2. If the patient's natural resistance to tuberculosis is lowered, efforts must be made to improve this condition by complete rest, nutritious food and pure air. Tuberculin will not help if these potent agents fail. 3. The tuberculous infection must be limited either to one lobe of a lung or two small areas in both lungs. If cavities have occurred, and general constitutional involvement has taken place, tuberculin has little or no lasting effect. 4. The age of the patient must be considered. The younger the patient, the more readily does he or she respond to the action of tuberculin.

Cutaneous Reactions of Tuberculin

DR. FREDERICK TICE, Chicago: The tests employed were: (1) Scarification, vaccination, or cutaneous method of v. Pirquet; (2) the ointment or percutaneous method of Moro; (3) the dermo reaction method of Lignieres; (4) the differential scarification method of Detre for diagnosis and therapy. Some one or more of these tests were employed in 235 cases. Based on the observations in these cases the following conclusions appear justifiable: 1. Tuberculin as a means of diagnosis is a most valuable agent, but must be considered only from the standpoint of corroborative evidence. A positive reaction to tuberculin indicates the presence of a tuberculosis, but physical findings and symptoms must be considered, for a tuberculosis may exist and fail to give a reaction. 2. The cutaneous tests are to be preferred to the subcutaneous or the ocular methods, as there are no associated dangers or undesirable results. 3. The percutaneous method of Moro, for certain reasons, seems to be preferable. It is easily applied without objection on the part of the patient or relatives. This is not the case with the v. Pirquet test owing to the general antipathy to any form of vaccination and as the test in children is not infrequently associated with excitement and crying. The results are quite as constant and when a difference occurs it is in favor of the ointment. The dermo test is not so reliable and this may be due to the difficulty in applying as compared to the ointment, as the upper layer of the epidermis forms in rolls. 4. The more youthful the patient, the more valuable the test. When autopsy records are examined, with the view of determining the frequency of some form of tuberculosis, practically present in all adults, the unimportance of a positive test, without other findings become evident. A negative test in the adult, all circumstances considered, is more valuable than a positive one. The non-value of the scarification in the adult has been pointed out by v. Pirquet, v. Emmerich and Hamburger. 5. The type of the reaction bears no relation to the type of the disease. It is true, however, that the slowly developing mild reaction occurred in the apparently arrested, cured or old cases. The most active reactions took place in the surgical forms of tuberculosis. 6. Concerning the Detre reaction, the number of cases examined is not sufficient for conclusions, but it would appear that much information is to be obtained by such a test. The frequency of the old tuberculin producing the dominant reaction would indicate that, therapeutically, one of the filtrates or a combination should be employed.

Discussion on Tuberculosis

DR. S. E. MUNSON, Springfield: Nine years ago I read a paper in regard to bovine tuberculosis as affecting the milk supply, and at that time there was scarcely enough evidence to show that bovine tuberculosis is transmissible to the human being. After reading that paper, I corresponded with men of wide experience and observation, and among them with Professor Holt, of New York, who wrote me that he did not believe bovine tuberculosis was transmissible to the human being. There were many physicians, however, who believed that it was transmissible, and I am glad to know to-day that the opinion prevails among those who have had opportunity to investigate that it is communicable from cattle to human beings. I think the source of our milk supply in each community rests largely on physicians, and it is certainly of great importance to the medical profession in their work and in the care of their families that they know something about the milk supply children are fed on.

DR. E. F. INGALS, Chicago: Remembering that practically every adult has tuberculosis or has had it, it is very important that we should be able to make a diagnosis of active tuberculosis as soon as possible, and, it seems to me, the statement of Dr. Tice is conclusive of the fact that these cutaneous tests are of value in determining whether or not the case is active. Perhaps we can not prove it, but taken in connection with the other means of making a diagnosis the cutaneous test is of much value.

DR. W. C. BOUTON, Waukegan: I have had but little experience with the tuberculin tests. Dr. Watterson has had a good deal of experience with this test. He developed tuberculosis himself five years ago, went to Colorado, and after a year, all symptoms disappearing, he returned to Waukegan last spring to practice. He started a tent colony for the treatment of tuberculosis, has had a number of patients, and has obtained good results. He has used the Moro test in every case, and with one or two exceptions has obtained a positive result in every case in which the patient showed any symptoms of tuberculosis from the physical examination. In other patients who came to him in whom tuberculosis was suspected on account of anemia or run-down condition, but in whom there were no physical signs of tuberculosis, there were no results from the Moro test.

SYMPOSIUM ON NEPHRITIS

Significance of Albumin and Casts in the Urine

DR. ARTHUR R. ELLIOTT, Chicago: As a symptom, albuminuria is to be distinctly held in mind as not only an accompaniment of Bright's disease, but of acute and chronic inflammatory conditions of other portions of the genitourinary tract. It is frequently noted as a concomitant of disorders of digestion and elimination. In the zymotic diseases and acute infections it is very common. Certain static circulatory states, such as result from heart lesions, hepatic cirrhosis, and abdominal tumors produce albuminuria. Notwithstanding the diversity of its etiology, albuminuria, whether transient or permanent, must be regarded as pathologic. The so-called functional albuminurias (cyclic, orthostatic) constitute no exception to this rule. Although albuminuria may not necessarily mean serious organic mischief in the kidneys, it invariably points to some urinary or systemic perversion, and its presence, however slight, demands serious care and consideration before a decision is reached as to its being of no clinical significance. A form of albuminuria that is encountered during childhood and early adult life is so-called functional albuminuria. The characteristics of this form of albuminuria are that it is transitory, usually intermittent, and dependent on some special factor, such as muscular exercise, posture, cold bathing, or some particular article of diet, and, moreover, is not accompanied by the systemic and urinary indications of a true nephritis. There has been much

dispute regarding the nature and origin of tube casts. The oldest view is that they consist of coagulated fibrin derived from an exudate such as is found in inflammatory elsewhere in the body. This view is no longer tenable in consideration of the fact that casts unquestionably occur in the urine in conditions in which there is not the slightest sign of inflammation, such as renal congestion, and simple amyloid kidney. Moreover, casts do not give the same chemical reactions as fibrin. Their failure to occur in many cases of albuminuria and their appearance without albuminuria seem to indicate that they do not consist of coagulated albumin, as some have held. There is no fixed ratio between the amount of albumin in the urine and the number of casts. The occurrence of casts without albumin in those forms of infection and intoxication in which degeneration and disintegration of the tubular epithelium have been proved suggests that they are formed from these epithelial elements. Casts are always indicative of a pathologic process in the kidney, more particularly in the epithelial elements, ranging from a mere nutritional or functional disturbance to extensive destruction of the parenchyma. The freer from degenerative markings the cast cells are, the more acute it may be inferred is the degree of inflammation. A trace of albumin and hyaline casts in the urine are too often magnified in importance, and the clinical condition as a whole is often not sufficiently considered. Albuminuria and cylindruria have not the fixed diagnostic value they were once supposed to possess. In suspected renal disease the urine should be repeatedly examined and its fluctuations taken into account; no clinical construction should be placed on urinary findings until a careful investigation has been made of the symptoms and physical signs presented by the patient.

Value and Limitations of Salt-Free Diet and Restriction of Fluid in Nephritis

Dr. Charles Spencer Williamson, Chicago: The general consensus of opinion seems to be that chlorid retention does not occur to any considerable degree in the atrophic type of nephritis, as it does in parenchymatous forms. The French writers are still strongly impressed with the value of the milk diet. The *régime lacte* has become almost a fetish with them. The administration of water in nephritis is a more complicated subject, as more factors have to be considered. The necessity of obtaining a correct judgment in regard to the administration of water is imperative, because it is possible to bring about irreparable injury by a failure to recognize the indications for either its withdrawal or free administration. Following the work of Oertel and v. Noorden, the recent tendency has been to restrict the use of water on the ground that by reason of its absorption into the circulation, it increases the tension, thus adding to the work of the already overburdened heart. To summarize, it would seem that the restriction of the total fluids below 1,500 c.c., exclusive of the amount contained in food, may be quite as injurious as the excessive quantities formerly prescribed. In my opinion, when the extensive edema finally occurs in the contracted kidney, it is to all intents and purposes a cardiac edema and should be treated primarily as such.

Discussion on Nephritis

Dr. James B. Herrick, Chicago: We should regard albumin and casts as always pathological, but not necessarily indicating disease of the kidney, or as indicating that the disease of the kidney, even though it be present, is serious. There is a tendency for us either to overestimate their importance, as was done several years ago, or to underestimate the importance of traces of albumin and the finding of a few casts in the urine. I fear we are inclined even now to overestimate the importance of these things and to condemn a man perhaps to Bright's disease when we find a trace of albumin or a few casts in his urine. With the electric centrifuge, casts are found in the urine of nearly every individual over the age of 40 or 45. A trace of albumin may be found under various circumstances, and is really not of much pathologic importance. The only way we can readily estimate such findings in the urine is to individualize, not to dogmatize, as Dr. Williamson has pointed out, or to estimate on the basis of any hard and fast rule. We must study, in other words, the patient as a whole, and when we find albumin and casts in the urine, we should look on this as something that needs careful ingestigation. In one case we may find no other evidence of nephritis; we may find none of the cardiovascular changes, no anemia, no retinal changes, which can be looked on as due to uremic intoxication; while in another case, with no more albumin, no greater number of casts, we may put a serious interpretation on that case, in that we find deterioration of the blood, loss of weight, urinous odor to the breath, and definite cardiovascular changes.

Dr. E. J. Brown, Decatur: I have under observation what I consider a remarkable case of chronic parenchymatous nephritis. The patient came to me with albuminuric retinitis so advanced that the amblyopia was almost complete. The man could not read newspapers. He could barely walk around the house. I gave a bad prognosis. I put him on a milk, vegetable and fruit diet, and told him he could eat anything that came out of the ground. I was surprised at the ease with which he took this diet, which reduced his salt. There was a remarkable improvement in his eyesight, so that he can now read the morning papers. But I regard this improvement as only temporary. We are sometimes astonished at the length of time nephritics will live. I recall a patient with chronic parenchymatous nephritis whom I saw eight years ago, with profound anemia, and universal anasarca; the man is now well and running a store. He ascribes his cure to a six years' course of urotropin (hexamethylenamin). He said he took seven and a half grains a day for six years. I do not believe that the drug had much to do with the cure which was effected in his case; but he also took the treatment recommended for him, namely, a milk diet, and egg restriction. At any rate, the result has been remarkable in regard to the length of time the man has lived.

Dr. H. J. Stewart, Chicago: In chronic interstitial nephritis more attention should be paid to the action of indican in the urine. We all know that indican is the result of intestinal putrefaction, and that probably the toxemia which results irritates the kidneys to such an extent that uremia, retinitis, etc., may be due to the presence of indican, or the intestinal putrefaction arises from toxemia in the intestinal tract.

Dr. A. Belcham Keyes, Chicago: In our work on the peritoneum we have cases of peritonitis in which there is an enormous autointoxication from the peritoneal cavity, and we try by the use of opiates to bring about localization after operation and drainage. In these cases it is necessary for the kidneys to eliminate as freely as possible, and in many cases there are albumin and casts from the febrile condition and autointoxication disturbance. There is a dearth of knowledge as to what to feed such patients on to get results. For years I have used peptonized milk, which was not mentioned by any of the essayists. I would like to know what they think about it.

Dr. Robert H. Babcock, Chicago: In chronic nephritis, anyone who has seen many cases must have observed that there are edemas that are hard and some that are soft; whereas in all cases of cardiac disease in which there is edema one should estimate the volume of chlorids in the urine. Nevertheless, in a purely empirical and rough fashion it will give considerable information as to the value of restricting or entirely eliminating salt from the diet. If the edema is soft, restriction or total abolition of salt from the diet will usually prove most efficient in its reduction. In the hard edemas dechloridization of the diet is of small value, in my experience. In many cases of chronic nephritis, without much edema, we see patients who suffer a good deal from a sort of paroxysmal dyspnea. In some of these the heart does not seem so much at fault, and it is rather difficult to determine just why we look on it as toxic, and perhaps in some cases it is purely toxic, but it has been my experience that the restriction of salt in the diet is many times most happy in its effect in the relief of some of these cases of dyspnea. In a case of chronic nephritis in which there is no edema, I believe it is a good plan to impress on such patients the importance of cutting down their salt, else the time will come when they will develop edema.

(To be continued)

Medicolegal

Telephone Company Not Liable for Death Due to Inability to Use Line to Call Physician

The Court of Civil Appeals of Texas says, in Southwestern Telegraph & Telephone Co. vs. Solomon, that the evidence showed that at about 2 a. m. Mrs. Solomon was taken violently sick in childbirth, and that her husband tried to call the family physician over the company's telephone in which he had a rental interest, but could not get connection with the central office because the telephone was out of order, due to the negligent condition of the ground wire. He then got on his horse and went to the house of the family physician, the one he had been trying to get over the telephone, and found him sick and unable to go. He then tried to get the central office from this physician's house to get another physician, but could not get central from there. He then went to the central office, found it locked and tried to get in, but could not. He then went to a nearby telephone, called central, and summoned another physician, who went to the house, but got there too late to save Mrs. Solomon's life. She had given birth to a child and died from hemorrhage of the womb, which might have been stopped if a physician had arrived sooner.

Was the telephone company liable for damages? The court holds that it was not. It thinks the damages in the circumstances were too remote and were not such as both parties would reasonably have understood and contemplated as likely to result from the breach of the contract or the negligence of the company.

If there had been a specific contract with the telephone company by which it had agreed to transmit or to furnish facilities for transmitting this particular message to the physician, or if the object and purpose in having the physician summoned over the telephone to immediately attend the woman was previously made known in proper time to the company under the general contract of telephone service, then there might have been some analogy between this case and the various telegraph cases where telegraph companies have been held responsible for such damages for failure to promptly transmit and deliver the message. But here the unusual situation and condition of the woman was not known to the company, and it had no notice or previous notice of the importance or urgency of a communication to a physician and his summons to come at the time to attend her.

Nor could the suspense and anxiety suffered by the woman because of the fact that a physician failed to reach her sooner than he did be fairly and reasonably considered in the circumstances as arising naturally and in the usual course of things from the failure of general telephone service in the absence of notice to the company of the object and purpose of the deceased in having the physician summoned to come and attend her.

Changing View of Power to Order Physical Examinations in Federal Courts

The United States Circuit Court of Appeals, Eighth Circuit, says, on the appeal of Chicago & Northwestern Railway Co. vs. Kendall, a personal injury case brought by the latter party, that on the trial the plaintiff took the witness stand in his own behalf, and while undergoing cross-examination was asked to expose his knee to the jury for inspection. After some colloquy his counsel directed him to comply with the request. A question was then raised as to whether the injured knee was different from the other knee, and a juryman suggested that the matter could be better determined by an examination of the other knee, and, thereupon, the plaintiff exposed that knee also. Counsel for the railway company then stated that he had in the courthouse two reputable physicians, and asked the plaintiff if, with his knees exposed, he would permit these two physicians, in the presence of the jury, to examine him. This the plaintiff refused to do.

A motion was then made that the plaintiff be required to submit his knee to the examination of physicians selected by the defendant company, either in open court, or at some other place, before the conclusion of the trial. This was overruled on the ground that a United States court has no power to require a party to submit to a physical examination, except in those states where the local statute authorizes it, and there is no such statute in Iowa, where the trial took place.

But the United States Court of Appeals holds that it was error to refuse to compel the plaintiff to submit his knee to surgical examination under the circumstances. It says that in this case it was not dealing with an application for a surgical examination in advance of the trial. Here the plaintiff at the trial voluntarily exhibited his knee in open court for inspection. Having done this, it was beyond his power to arrest the investigation. The defendant and the court were entitled to employ any agency in its examination which would aid in the determination of the issue on trial. It is universally held that where an inanimate object is produced on the trial of a case it is subject to any legitimate examination and test which will elucidate the matter in dispute. It may be submitted, for example, to chemical treatment, or to examination by the microscope. Simply looking at the plaintiff's knee with the eye of a layman furnished little aid in determining its condition. He himself maintained that there were no external evidences of injury. Whether there were hidden ailments could only be discerned by the skill of a surgeon, and the defendant and the court were as much entitled to turn the eye of a surgeon on the plaintiff's knee as they would have been to look at a blood stain through a glass. Having exhibited his knee to the jury, it became a part of the evidence, and the mere accident that the thing exhibited was part of a human body could only qualify, and not defeat, the right of complete investigation.

With regard to Union Pacific Railroad Co. vs. Botsford, 141 U. S. 250, in which the Supreme Court of the United States decided that federal courts do not possess power, independent of statute, to compel a plaintiff in an action for personal injuries to submit his body to the examination of physicians, it is pointed out that there the application was made in advance of the trial, and that the Supreme Court has already limited the Botsford decision in Camden Railway Co. vs. Stetson, 177 U. S. 172. Also, that the decision is at variance with a large majority of the state courts. The rule which it declares has been abrogated by statute in many jurisdictions where it once prevailed. This is the case in New York, New Jersey, Great Britain, Canada and Australia. Therefore this court does not feel disposed to extend the decision beyond the facts there involved.

When Insanity or Delusion No Defense to Crime

The Supreme Court of Kansas says, in the homicide case of State vs. Arnold, that it is the condition of the mind of the accused which determines whether he is criminally accountable for an act denounced by the statute as criminal, and not the name of the mental infirmity, if such infirmity exists. The law recognizes every form of insanity or delusion which renders an accused mentally incapable of knowing the nature and quality of an act he is doing, and that what he is doing is wrong, as relieving him of criminal responsibility for the act; but no delusion or mental weakness which falls short of rendering the mind incapable of such discernment obviates the criminal character and penalty of the act. That is to say, no delusion or impulse excuses one from the penalty for an act committed which the statute denounces as criminal, unless such delusion or impulse unseats the reason and judgment so far that it can be said beyond a reasonable doubt that the accused at the time of the act did not know the nature and quality thereof and did not know that what he was doing was wrong.

Implied Power of President of Corporation to Employ Physician

The St. Louis Court of Appeals affirms a judgment for the plaintiff in the case of Weinsberg vs. St. Louis Cordage Co., which was brought by a physician and surgeon to recover compensation for surgical services rendered in performing an operation on one of the defendant company's employés, at the instance and request of its president. The court says that it was conceded that the defendant was a manufacturing com-

pany, incorporated under the laws of Missouri, and, in view of that fact the court entertains no doubt whatever as to its being within its power to employ a surgeon to attend an employé seriously injured in its factory.

In volume 5 of his Commentaries on the Law of Corporations, section 5840, Judge Thompson says: "An implied power will be ascribed to any corporation employing labor to incur expenses on account of injuries received by its employés in the line of their employment, in the absence of any express statutory grant of such power. This implication rests on the most obvious grounds of justice and humanity." There certainly ought not to be any question of doubt, with respect to the authority of the chief executive officer of an incorporated company, of the character here involved, to execute the power. When a catastrophe occurs in its factory, the corporation ought not to be expected to assemble its board of directors in order to exercise the implied power referred to. There is certainly an emergency power, incident to the office of president of such an institution.

It is no doubt true that where a physician or surgeon renders services to one at the mere request of a third person, on whom there rests no obligation to provide such service, the law will not imply a contract to pay on such mere request. On this question the law is succinctly and accurately stated as follows: "When a person requests a physician to perform services for a patient, the law does not raise an implied promise to pay the reasonable value of the services so rendered, unless the relation of the person making the request to the patient is such as raises the legal obligation on his part to call in a physician and pay for his services."

In view of the law thus stated it was contended that no recovery should be allowed in this case, for the reason that the trial court found there was no express promise to pay. That is to say, it was argued that the case was one in which the court declined to imply a contract, and therefore to sustain a recovery an express contract must be shown. Had the trial judge found a mere request on the part of the defendant company, and nothing more, the argument would have been persuasive indeed. However, this court does not understand that because there was no express promise it followed that there might not be an actual contract, as distinguished from one implied by law. Although the law will not imply a contract, if there be an actual one, it need not be express.

It appeared that the trial court found, not only that the president requested the services, but that he intended the defendant company should pay therefor. It also conclusively appeared that the plaintiff intended to charge. In these circumstances the fact of a contract between the parties was established by the testimony. Although not express in all of its details, it nevertheless constituted a contract. There were present competent parties, the subject matter, a sufficient consideration, and, above all, the meeting of minds; for it appeared that the physician intended to charge, and the company intended to pay. Under these circumstances it was unnecessary to refer to the law for implication, for the contract was established as a matter of fact.

In the absence of express terms as to the amount of compensation, the law would imply a reasonable one. Whether the injured employé received his hurt through the negligence of the employer or not was immaterial. A physician, called by the employer in an emergency to treat a man severely injured, ought not to be required to inquire first as to whether the man was injured through the negligence of the employer, by accident, or as a result of his own carelessness. And then, too, if such were to be treated with as an element of the defendant's liability in a case of this character, it would introduce the collateral issues of negligence, into every case in which a physician seeks to recover on a contract with the employer for compensation in treating an injured employé at its request.

Admissible Evidence in Abortion Case

The Supreme Court of New Jersey holds, in the case of State vs. Fletcher, that on the trial of an indictment for abortion, evidence of the physical condition of the woman at a time some ten days subsequent to the time when it is alleged the operation was performed is admissible. More particularly, the testimony in question in this case related to an operation performed by surgeons on the woman some ten days after the abortion, the testimony being as to what this operation revealed as to the woman's physical condition. Such testimony was clearly admissible.

Mortuary Tables Not Applicable to Asthmatics

The Supreme Court of Mississippi holds, in Mississippi Cotton Oil Co. vs. Smith, that it was error to admit mortuary tables in evidence when the testimony clearly showed the decedent to be an asthmatic and a witness expressly testified that, being an asthmatic, he was not in the class embraced by the mortuary tables. It was expressly held in the case of Railroad vs. White, 82 Miss., 471, the court says, that these mortuary tables only show the probable age which a sound and healthy person belonging to the class may expect to reach whose age is given, and that it would be error to permit the introduction of mortuary tables to show the life expectancy of one not within the class of persons for whom such tables are prepared. The same doctrine is laid down in Telephone Company vs. Anderson, 89 Miss., 745, and Railroad vs. Crudup, 63 Miss., 303, and is well settled.

Transfers from Prisons to Insane Asylums

The Supreme Court of New Jersey says, In re Herron, that where a person under sentence of imprisonment as a punishment is transferred from a penitentiary to an asylum, it is not a transition from imprisonment to liberty. Whether in a hospital or a prison, the convict is a prisoner. Indeed a prison may have a ward for insane patients, and an asylum a ward for insane convicts. It is true that in the asylum he may escape hard labor, but so may any sick convict in the state prison. The removal of a prisoner, who is to serve out his sentence of imprisonment, to a place provided with all the appliances for medical treatment, is a humane provision, having a practical purpose. As remarked by Justice Parker: "The prisoner has his life to live, and public policy requires that he be so treated as to live it to the best advantage." That the prisoner remain in confinement in an asylum until fully restored to reason is a humane substitute for confinement in a prison where there are no adequate means for mental treatment. When, however, a person is confined to await the execution of a death sentence, the conditions are radically different. The removal to an asylum for treatment in such a case would be merely a removal for the purpose of restoring him to that degree of sanity which, at common law, was not inconsistent with his execution.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal

May 22

1 *The Medical Importance of the Study of Anthropology. C. E. Woodruff, Ft. Wadsworth, N. Y.
2 Diagnostic Value of the Inunction Tuberculin Reaction in Cutaneous Tuberculosis. W. B. Trimble, New York.
3 Electricity in Genitourinary Diseases. S. Tousey, New York.
4 *Blood Pressure Observations and Life Insurance. F. A. Faught, Philadelphia.
5 The Allyl Compounds, or the Ethereal Oil of Garlic. P. Bartholow, New York.
6 Deficient Oxidation in Its Relation to the Etiology, Pathology and Treatment of Nephritis. N. E. Ditman, and W. H. Walker, New York.
7 Therapeutic Use of Alcohol in Internal Medicine. G. B. Twitchell, Cincinnati, O.

1. Study of Anthropology.—Woodruff says that while biologists for half a century have been talking about adaptation to environment, the medical profession has entirely ignored it, commonly regarding the differences between types of men as of no significance; consequently no investigations have been made. A great obstacle to the determination of characters due to the selection of variations, is the fact that a modification may appear generation after generation so long as the cause acts, though such acquirements are never hered-

itary. Another disturbing factor is the effect of use or disuse. This, too, is non-hereditary in character. It behooves us, then, to take up each character and determine why it exists. Speaking generally, there is something about tallness and bulk which makes it an advantage in cold places and a decided disadvantage in hot ones. We lack adequate data to form a scientific theory concerning this, but the hypothetic explanation is that surface varies as the square, and weight as the cube, of length, so that heavy men have less radiating surface than thin men of equal height. This is a decided advantage in retaining body heat in cold climates, but prevents sufficient radiation and breaks down the nervous system in the tropics. This is a practical matter. Among thousands of cases investigated, not one overweight attained 80 years, while 44 underweights passed it. What is the cause? This is a typical instance where preventive medicine is waiting for an acceptable theory from anthropology and anthropology is waiting for pathologic facts on which to form a judgment. The nasal index—or the width of the nose divided by the length—which is greater in tropical natives than among inhabitants of cold climates, and its relation to respiratory diseases, also demand an investigation. Woodruff's own investigations have been entirely confined to the use of the pigments of the skin, hair and eyes. We are dependent for health on small amounts of light, but light in large amounts is lethal, and even in small doses may be unduly stimulating, so that the limit of safety is far below the point generally accepted by the medical profession. Nature is always removing the specimens insufficiently protected, so that in any place people in time become pigmented in proportion to the maximum intensity of light. The evidence is fairly conclusive that blonde races tend to disappear when they migrate to lands of excessive sunshine. These phenomena are occurring in America, and attention has repeatedly been called by anthropologists to the increasing brunette character of our population. While it is true that there are more blondes in the United States than ever before, that is due to the new arrivals. In New England the blondes do not maintain their proportion, because of a higher death rate or a lower birth rate, or both. What diseases are carrying them off in the rest of the country? Here the medical profession can be of immense value to anthropology by simply recording the complexion of patients of each group of diseases, whereby a study can be made of those most affecting brunettes and blondes, respectively, and preventive and therapeutic measures be developed. The United States affords a great field for investigation in these problems, for it offers many types of people, many varieties of diseases, and all kinds of climates, in each of which there are specimens from every region of the globe. Woodruff calls the idea that we are producing a new type by mixture, a "prevalent delusion." Nature has been mixing Europeans for thousands of years, and has been unable yet to produce a type fit to live everywhere, from Scotland to Sicily, and she will be equally unsuccessful here. Amalgamation is a biologic absurdity. No American type has yet been produced, and Woodruff finds, by a daily experience of twenty two years with soldiers, all of whom are dressed alike, that until questioned it is impossible to distinguish recently arrived foreigners from natives of many generations' residence. The same types are found in each class.

4 **Blood Pressure on Life Insurance.**—Faught says that recent increase in clinical data, which is the result of finer methods of observation, demands greater recognition by the practicing physician and the medical examiner. To facilitate a better understanding of the conditions encountered, more care should be exercised in the employment of clinical terms. More careful study should be made of the vessels in an effort to distinguish atheroma, hypertension, and arteriosclerosis. The sphygmomanometer is a valuable aid in determining arterial tension, and in differentiating diseases of the cardiovascular system. Our present knowledge of the subject of diseases of the circulatory apparatus demands a critical revision of the present examination questions to be answered by the life insurance examiner. He describes a sphygmomanometer of his own devising.

Medical Record, New York

May 22

8 *Neurogenic and Myogenic Theories and the Modern Classification of Cardiac Arrhythmias. S. J. Meltzer, New York.
9 Infant Mortality. W. L. Stowell, New York.
10 *Instantaneous Radiography in Less than One Hundredth Second: A New Method of Radiography. P. Dessauer, Aschaffenburg, Germany.
11 Economy in Major Anesthesia; More Particularly as to Ethyl Chlorid. R. H. M. Dawbarn, New York.
12 *Smoked Torics—A Menace to Health. P. R. Wood, Marshalltown, Iowa.

8. **Neurogenic and Myogenic Theories.**—Meltzer presents a careful review of the evidence in the question between the neurogenic and myogenic theories of cardiac action from the viewpoint, "not of a warrior taking sides with one of the camps," but simply from that of "a war correspondent telling the news from the battlefield." He reports that the myogenists have won the day, the majority of physiologic and medical investigators being converted to their views. The theory amply justifies its existence by its productivity. Fruitfulness is the only criterion and the only requirement of an efficient theory. The myogenic theory recently exerted a wholesome influence on medical investigation, and will continue to reign so long as it is productive. Meltzer then discusses the pathologic aspects of the problem, namely the arrhythmias. He briefly outlines the indispensable facts in physiology for the understanding of their modern interpretation. He discusses briefly, the methods employed in studying human arrhythmias; and finally, the classification and interpretation of the arrhythmias as they are advocated at present by leaders in this new field of clinical research.

10. **Instantaneous Radiography.**—Dessauer reviews the advances made in the question of shortening exposure, by Rosenthal, Rieder and Eykmann. Dessauer has made a series of pictures of the extremities of the thorax, the left superior part of the lung and the heart, in less than one-hundredth of a second. These were only slightly, some even not at all, under exposed. The advantage of this method is that it is no longer necessary to fix the patient carefully. The entire manipulations in radiographing do not require more trouble than the pulling of the trigger of a gun.

12. **Smoked Torics.**—Wood scores the smoked toric coquille much used and even prescribed by the profession as a shade for weakened sore eyes. It has an unmeasured and irregular refraction index ranging from 1/12 to 1/2 diopter minus. This is enough to cause pathologic local conditions and reflex functional neuroses in neurasthenics as is shown by the way that such conditions disappear on correction of such a defect. He describes a case in point. Glasses of the proper kind are plain and possessed of no refracting power.

Boston Medical and Surgical Journal

May 20

13 *Functional Relation of the Tonsil to the Teeth. G. H. Wright, Boston.
14 Short Description of Wertheim's Radical Abdominal Operation for Cancer of the Cervix Uteri, with Report of Eight Cases. H. T. Hutchins, Boston.
15 *Value of Ethyl Chlorid as a General Anesthetic. A. H. Miller, Providence, R. I.

13. **The Tonsils and the Teeth.**—Wright describes 19 cases and discusses the lymphatic anatomy of the region to show the connection between the teeth and the tonsils, and in conclusion offers the following observations:

1 When a tonsil is normal, infection from the external surface is rare.
2 Secondary infection through the lymph channels is the usual source.
3 There are four periods of molar eruptions, with some variations in time when the tonsils may enlarge without infection or inflammation viz., at two years, six years, twelve years and seventeen years.
4 Tonsils though slightly enlarged when not infected return to normal with complete eruption of the teeth.
5 Diseased teeth are a prolific source of enlargement of the glands through proximity of membranes, either directly, by infection, or by toxins.
6 In the treatment of the tonsil by the specialist, may we not include as a routine the observation as to carious teeth and a recognition of these four periods of eruption coincident with slight enlargement?

15 **Ethyl Chlorid as a General Anesthetic.**—Miller has administered ethyl chlorid by the handkerchief method 6,648

times. He briefly discusses the history of ethyl chloid, its advantage as a general anesthetic, and the records of supposed fatalities due to ethyl chloid, and shows the proportion of deaths to be 1 to 8,759 cases. In conclusion he says that the relative danger from an anesthetic depends on two factors: (1) The margin of safety of the drug; (2) the character of the danger signs. The margin of safety of an anesthetic may be represented by the proportion of the drug which may be administered beyond the amount required to produce anesthesia without causing symptoms of danger. Nitrous oxid has a small margin of safety, but the danger signs are so marked that nitrous oxid anesthesia is the safest known. Ether has a fairly large margin of safety and well-marked danger signs, so it is a safe anesthetic. Chloroform has but a small margin of safety and the danger signs are readily overlooked. It is always a dangerous anesthetic, but especially so in inexperienced hands. Ethyl chloid has a large margin of safety, but the danger signs are not marked. While it is very safe when administered by an expert, it may be very dangerous in unskilled hands. With an expert administrator, it should be safer than ether but less safe than nitrous oxid. With an unskilled or careless administrator it is probably more dangerous than ether, but not so dangerous as chloroform.

Lancet-Clinic, Cincinnati

May 22

16 Syphilis of the Throat A B Thrasher, Cincinnati
17 Syphilis of the Nose W Thrasher, Cincinnati
18 Syphilis of the Face A Ravogli, Cincinnati
19 Endowment and Environment G B Jenkins, Louisville
20 Expectant Treatment of Labor T. A Dickey, Middletown, O

Virginia Medical Semi-Monthly, Richmond

April 23

21 Superstition and Gem Therapeutics of the Ancients E L Morgan, Washington, D C
22 Extensive Lacerations of the Cervix Uteri, Involving the Parametrium—Their Significance and Treatment G T Harrison, New York
23 Some Accepted Facts and Moot Points in the Management of Appendicitis S McGuire, Richmond, Va
24 Inebriates and What to Do with Them J. S de Jarnette, Staunton, Va
25 *The Different Rings Obtained with Heller's Test for Albumin E F Rodriguez, Sagua la Grande Cuba
26 *Medicinal Treatment of Tic Douloureux B R Tucker, Richmond, Va
27 Infection by Antitoxin R Mason, The Plains Va
28 The Upbringing of American Children a Factor in the Comparative Rarity of Psychasthenia among Them T A Williams, Washington, D C

May 7

29 Personal Experiences in Prostatic Surgery R C Bryan, Richmond
30 Larval Tapeworm in Human Flesh: or, *Sparganum Proliferum Gatesius* (Stiles) H Gates, Manatee Fla
31 Penetrating Injury of the Brain Recovery W. A Gills, Richmond
32 Intestinal Perforation in Typhoid Fever. C C Tennant, Charlottesville, Va
33 Face Presentation. G H Thomas, Romney, W Va

25. Heller's Test.—Rodriguez says that in bilious remittent fevers with albuminuria, the liver not being deeply affected, there is to be noticed, underneath the milky ring, a wide, deep red band, which, together with microscopic examination of the blood, settles the diagnosis When albumin is absent the red ring is replaced by another, almost black, but with a red shade on refraction, which he considers characteristic. When the liver tissue is affected the ring is reddish black. In yellow fever he presents the following as a new sign: The white milky ring of Heller's test due to albumin, which is early visible in yellow fever, is to be observed on top of a greenish band, which is of fatal omen if it becomes deep green He reports a doubtful case in which diagnosis was made by means of this sign and subsequently verified.

26. Tic Douloureux.—Tucker reports 13 cases, from which he draws the following conclusions:

1 Malaria and rheumatism were prominent factors in causing the tic in these cases
2 Sodium salicylate in the rheumatic cases, and quinin in the malarial ones, pushed to limit of tolerance is of marked benefit
3 The effect of treatment is enhanced by a week's rest in bed, purgation, and a nourishing, but not too rich diet
4 As a rule medical means should be first tried then alcoholic injection If these are not effective the peripheral operation should first be performed, and the Gasserian ganglion operation only as a last resort.

Kentucky Medical Journal, Bowling Green

May 15

34 Postoperative Paralysis, M B Halpern, Louisville
35 Brain Tumor with Exhibition of Specimen J D Trawick and S G Dabney, Louisville
36 Treatment of the Faucial Tonsil W J Leach, New Albany, Ind
37 Casualties of Copulation J T Windell, Louisville
38 General Paresis E D Burnett, Louisville

Archives of Internal Medicine, Chicago

May

39 *Occurrence of Fat in the Islands of Langerhans D Symmers New York
40 *Method for Hemolysis and Agglutination Test A A Epstein and R Ottenberg, New York
41 Papilloma of Choroid Plexus with Hydrocephalus S B Slaymaker and P Elias Chicago
42 Incidence of Glycosuria and Diabetes in New York between 1902 and 1907 T B Barringer, New York
43 *The Moro and von Pirquet Tuberculin Reactions H S Patterson, New York
44 *Cutaneous and Conjunctival Tuberculin Tests in Diagnosis of Pulmonary Tuberculosis L Hamman and S Wolman, Baltimore
45 *Buckwheat Poisoning H L Smith, Baltimore
46 Studies in Inaccessible Internal Hemorrhages C. J Wiggers Detroit
47 *Artificial Respiration in Treatment of Edema of the Lungs H Emerson, New York
48 Pulmonary Edema Treated by Artificial Respiration T B Barringer, New York

39. Fat in the Islands of Langerhans.—Symmers reports a study of the fat content of the islands of Langerhans from a purely morphologic view, in a series of 73 unselected autopsies, with Sudan 3 as a stain. His observations, he believes justify the following conclusions:

1 The presence of fat in appreciable amounts in the islands of Langerhans, contrary to certain observations recorded by Stangl, is invariably pathologic
2 Fat accumulates in these situations in individuals at or beyond middle life in response apparently to certain changes brought about in the cells by the prolonged use of alcohol Thus, out of 32 alcoholic subjects excessive accumulations of fat were present in the islands of Langerhans in 24 instances (75 per cent), while in 41 non alcoholic subjects varying in age from a seven months' fetus to 68 years the islands were wholly free from fat or occasionally fat was to be made out in isolated islands in entirely negligible quantities
3 The islands of Langerhans may be completely devoid of fat in genuine diabetes mellitus
4 There would also seem to be sufficient data to warrant the suggestion that the occurrence of fat in excessive quantities in the islands of Langerhans is a factor in the production both of the intolerance for sugar manifested by alcoholic subjects and of the alimentary glycosuria so frequently to be observed in individuals of this type

40. Hemolysis and Agglutination Tests.—Epstein and Ottenberg point out that the quantity of blood necessary for controlled tests in all serum reactions exercises a great limitation. They record a means for performing a large number of tests with a very small amount of blood Two methods of obtaining the blood are described, one with a small syringe (10 to 15 c c. capacity) from a vein at the end of the elbow and the other by deeply pricking the lobe of the ear One or two c c. of the blood are then put in a tube containing an excess of salt citrate solution, centrifuged, washed, and made up to the desired percentage in normal saline solution When sufficient blood has been drawn by the syringe, the remainder is placed in small slanted test tubes and the serum allowed to separate by clotting. Small glass capillary capsules are used to obtain the serum, and when three quarters full, the capillary end is sealed, the blood allowed to clot, and the capsule centrifuged When it is nicked with a file it is broken open and the serum can be pipetted off For making the mixtures, small pipettes (from four to five millimeters' caliber), fitted with rubber nipples, are used The tips of these pipettes, drawn to a length of two or three inches, are marked at an arbitrary point with a blue pencil The suspension of erythrocytes is drawn up to the mark By drawing this a little farther into the pipette one allows a small bubble of air to enter the tip, and then, in a similar manner one or more volumes of the serum are drawn into the same pipette. Thus definite proportions of the ingredients can be accurately measured By running the cell suspension and serum gently up and down in the pipette they become thoroughly mixed. The entire mixture is then drawn up into the body of the pipette and the tip is sealed in a flame The pipettes may be kept upright by sticking them into a tumbler

of sand. These narrow tubes serve in every detail the purposes of the larger test tubes generally used.

43. **The Moro and von Pirquet Reactions.**—Patterson reports the results of a comparative investigation in 171 cases, and concludes that the Moro reaction is absolutely harmless and simple; better adapted to adults than the von Pirquet test, and while it produces a reaction about as frequently as the ocular reaction in the tuberculous and in the clinically free cases it is devoid of danger.

44. **Idem.**—Hamman and Wolman report in detail a lengthy investigation into the cutaneous and conjunctival reactions and the relations between these and the subcutaneous test. Their experiments are tabulated and their conclusions are summarized as follows:

1 In adults the cutaneous tuberculin test is of value in diagnosis only when it is negative
2 The frequency of its occurrence runs roughly parallel with that of the subcutaneous test
3 The conjunctival test is of value principally on the positive side, a definite reaction indicating the presence of an active tuberculous lesion
4 The most satisfactory results are obtained by using the two tests simultaneously Both being negative speaks for the absence of any active tuberculous focus, both being positive, for its presence, the conjunctival negative and the cutaneous positive give no information of value
5 We can not admit that the conjunctival or cutaneous reactions have any prognostic value
6 The same conjunctiva should never receive a second instillation The reaction so obtained is valueless for diagnosis and the procedure not without danger
7 We believe that with proper precaution the conjunctival test may be used without danger of permanent injury to the eye
8 We have been unable to confirm in any particular the claims Detre makes for his differential cutaneous reaction.

45. Abstracted in THE JOURNAL, May 29, p 1785.

47. **Edema of the Lungs.**—Emerson urges artificial respiration, which he believes would prove more prompt and effective than any medication whenever the edema and cardiac incompetence are of sudden development and due to causes likely to prove of brief duration or removable by appropriate treatment; and it would at least give mechanical relief to the overloaded heart muscle while arterial relaxation and cardiac stimulation are being effected by drugs. Edema due to cardiac failure in pneumonia, or the inevitable terminal feature of chronic endocarditis, naturally can not be expected to respond to such temporary relief measures.

Cleveland Medical Journal

May

49 *Opsonins and Other Antibodies L Hektoen Chicago
50 The Emmanuel and Allied Movements W C Bunce, Oberlin, Ohio
51 *Medicine and the Press G W Crile, Cleveland
52 Diagnosis and Treatment of Brain Tumor A Peskind, Cleveland
53 Rupture of the Vaginal Vault During Labor A J. Skeel, Cleveland
54 Anemia Due to Recurrent Nasal Hemorrhages M Metzenbaum, Cleveland
55 Locomotor Ataxia with Abductor Paralysis of the Vocal Cords W B Chamberlin, Cleveland

49 **Opsonins.**—Hektoen discusses the final results of research in its general bearing on the work on opsonins He outlines the theory and discusses the resistance offered by microbes under different conditions to antibodies, and more particularly to opsonins, as exemplified in the bacillus carrier Recent experiments have resulted in complete harmony with the early teaching of Metchnikoff, that as a microbe grows in virulence, its resistance to phagocytosis increases. The passage of pneumococci, streptococci, and other bacteria, through suitable animals makes them at the same time more virulent and more resistant. Cultivation outside the body causes reversion to less virulent states Investigating this property of pneumococci to develop such strong defense against phagocytosis, Rosenow found that extraction of autolysis of virulent pneumococci brings into solution a substance or group of substances that neutralize the pneumococco-opsonin in human serum, but not other opsonins After extraction of this substance, which is thermostabile and insoluble in alcohol or ether, virulent pneumococci unite with opsonin and become phagocytable, while avirulent pneumococci, on treatment with extracts of virulent strains, not only become resistant to phagocytosis in the test tube, but also, to some degree, virulent for animals. It may be said, then, that the properties called virulence in pneumococci appear to depend, to a very large extent if not wholly, on the formation of an actual substance—"virulin"—which may be extracted and studied by itself. It is hoped that this demonstration may prove a basis of departure for new and fruitful work in pneumococcus and similar infections.

51. This article is discussed editorially in this issue of THE JOURNAL.

Journal of Biological Chemistry, Baltimore

May

56 *Composition of Dilute Renal Excretions A B Macallum and C C Benson, Toronto
57 Depression of the Freezing Point of Water Due to Dissolved Caseinates T B Robertson, and T. C Burnett, Berkeley, Calif
58 Cerebrospinal Fluid in Certain Forms of Insanity, with Special Reference to the Potassium Content. V. C Myers, Middletown, Conn
59 *Human Pancreatic Juice H C Bradley, Madison Wis
60 Modification of Lunge's Method for the Quantitative Estimation of Urea C Quinan, Berkeley, Calif
61 Relation of Different Acids to the Precipitation of Casein and to the Solubility of Cheese Curds in Salt Solution J L Sammis and E B Hart, Madison, Wis
62 Endeavor to Account for the Transfer of Protéid in Inanition. A Woelfel, Chicago

56. **Dilute Renal Excretions.**—Macallum and Benson undertook to solve the question as to the filtration or secretion theory of the formation of urine by analyzing the dilute urine produced by drinking large quantities of water. They reason that if the production of urine is due simply to filtration, such urine having passed through the tubules too rapidly to be modified by reabsorption should contain the inorganic salts in the same proportion as does the blood plasma. They found, however, that the relative value of potassium and chlorin is never that which obtains in the blood plasma, and is usually much greater than that which is obtained in the concentrated urine, formed immediately before the experiment began. This increase in the value of potassium as related to chlorin is due to a "lag" in the diminution of the secretion of the potassium, as compared with that of the chlorin during the decrease in the concentration. This lagging behind, or "hysteresis" may be found again, though not always, when the urine begins to increase in concentration, the value of $\frac{K}{Cl}$ then falling because the potassium slowly, and the chlorin (especially of sodium chlorid) rapidly, increases. In some cases, notably toward the end of a series, the rate of the excretion of the potassium, relatively to the chlorin, may rapidly increase or rapidly decrease. The elimination of water is due not to filtration, but to the physiologic activity of the renal membranes involved in the elimination. The removal of potassium salts and of chlorids from the blood by the kidneys is due not to filtration, but to forces which may be termed "secretory," that is, it is caused by an activity which is apparently selective, or differential, but which may be explained as due to difference in solubility of the different morganic constituents of the plasma in the secreting membrane. The solubility, either relatively or absolutely, or both relatively and absolutely, would be altered by changes in the constitution of the membrane brought about by the action on it of unusual constituents of the plasma or of constituents of unusual proportions

59 **Human Pancreatic Juice.**—Bradley had the opportunity to examine human pancreatic juice, derived from a traumatic fistula which probably communicated with the accessory duct of the pancreas He summarizes a part of his results as follows:

1 The specific gravity averages about 1010
2 Alkalinity is due to normal and bicarbonates, chiefly the latter The secretion varies from a $\frac{N}{20}$ to $\frac{N}{10}$ bicarbonate solution.
3 No definite relation could be established between diet and enzyme content The enzymes are found to vary considerably, with the exception of amylopsin, which appears to be more constant in amount from day to day A slowly secreted juice is more concentrated in its solid content, its carbonates, and lipase
4 Rennin, invertase and lactase were not found
5 Manganous sulphate was not found to accelerate starch digestion, nor was bile
6 Trypsin was found in about half of the samples collected Inactive samples could be readily activated with enterokinase prepared from the intestines of dogs and cats Inactive samples be

came gradually active on standing, though saturated with toluol and in some cases chloroform.

7. The lipolysis of olive oil and ethyl butyrate varies in parallel directions in the different samples. The author believes that a single enzyme accomplishes both digestions.

Journal of Cutaneous Diseases, New York

May

63 *Chronic Itching Papular Eruption of the Axillæ and Pubes: Its Relation to Neurodermatitis. J. A. Fordyce, New York.
64 Therapeutic Testing of Dermatologic Remedies. H. Fox, New York.

63. **Itching Papular Eruption of the Axillæ and Pubes.**—In a well-illustrated article, Fordyce reports a case and refers to two others of a condition of thickened skin, attended by an excessive amount of itching, and made up of papules or diffuse patches, not corresponding to typical lichen planus lesions, which, by many, are considered as secondary eczema on the one hand or as related to the lichen group on the other. He urges that more attention be given to Brocq's conception of this group under the term lichenification. He includes his case under the class of eruptions described by Brocq under the name *névrodermite chronique circonscrite*. The symptoms are a limited pruritus with subsequent pigmentation and exaggeration of the natural lines, the skin becoming by degrees thickened, and distinct lesions more prominent as a result of scratching. The regions most often attacked are the neck, upper and internal surfaces of the thighs, the loins, intergluteal folds, inferior and external part of the leg, the scrotum, labium majus, the waist line in women, the popliteal and axillary folds, and the palms and soles. He discusses the histology and states that the similarities between his case and those of Brocq are more marked than the differences. Pending a more positive knowledge he feels justified in calling this distressing affection a variety of neurodermatitis, probably of toxic origin.

American Journal of Urology, New York

May

65 Orchitis from Infection of the Prostate, Based on the Analysis of Eleven Cases. P. Loze, Paris, France.
66 Conclusions in Regard to Uroureter Due to Nephroptosis. B. Robinson, Chicago.
67 *Renal Complications of Acute Gonorrhea. Dr. Stoyantchoff, Velico-Tirnovo, Bulgaria.
68 *Simple Method of Estimating Ammonia in the Urine, Suitable for Clinical Purposes. G. C. Mathison.

67. **Renal Complications of Gonorrhea.**—Stoyantchoff says that the frequency of albuminuria in the acute stages of gonorrhea demands more attention than it has hitherto received. In most cases the nephritis is metastatic, though in some it is due to extension. He discusses these types and states his belief that the charge that they are due to the use of balsams is greatly exaggerated. The prognosis in albuminuria arising during gonorrhea is usually favorable, though some cases of ascending infection and of general infection with edema and anasarca are of serious prognosis. The treatment of renal complications during gonorrhea is that of acute nephritis, with an absolute milk diet as its basis. In the ascending type the cystitis should be treated at the same time.

68. **Estimation of Ammonia in the Urine.**—Mathison describes Malfatti's simple and rapid method of estimating the ammonia in the urine. It depends on chemical reaction that takes place when a solution of an ammonium salt is treated with formaldehyd. He has found that the accuracy of the method can be increased by adding 15 grams of powdered, neutral potassium oxalate to the urine and shaking before titrating. In all the urines examined the formaldehyd method gave higher results—about 15 per cent.—than the Folin method.

Archives of Pediatrics, New York

May

69 *An Epidemic of Acute Poliomyelitis. H. Koplik, New York.
70 *Early Symptoms in Sixty-Three Cases of the Recent Epidemic of Anterior Poliomyelitis. L. E. La Fétra, New York.
71 *Occurrence of Pepsin in the Infant Stomach, and Dependence of its Digestive Power on the Presence of Hydrochloric Acid. W. R. Ramsey, St. Paul
72 *Sea-Water Treatment Given by Subcutaneous Injection, with Results Obtained in Children. T. Le Boutillier, Philadelphia.

69, 70. Abstracted in The Journal, July 11, 1908, p. 156.

71. **Pepsin in the Infant's Stomach.**—Ramsey reports a series of observations and laboratory investigations, from which he draws the following conclusions:

1. The gastric juice of normal breast infants contains pepsin.
2. The stomachs of infants suffering from acute digestive disturbances usually contain pepsin.
3. The stomachs of infants suffering from pylorospasm contain both pepsin and hydrochloric acid in greater quantity than the stomachs of normal infants of the same age.
4. The stomachs of chronic atrophic infants frequently contain no pepsin.
5. When these chronic atrophic infants begin to improve in health and to gain in weight, the stomachs again contain pepsin.
6. The gastric juice of normal infants is capable of transforming proteid into peptone, and it is able to do this without the addition of any other acid than that found normally in the stomach.
7. The pepsin in the gastric juice is capable of active digestion when lactic acid and no hydrochloric acid is present.
8. Both hydrochloric and lactic acid may be present in the gastric juice without pepsin, and pepsin may be present without either hydrochloric or lactic acid.

72. Abstracted in The Journal, April 17, 1909, p. 1276.

Bulletin of Lying-in Hospital of City of New York

December

73 *Gynecology and Obstetrics in America. B. C. Hirst, Philadelphia.
74 *Gangrene of the Vulva, Vagina and Cervix Following Abortion at the Sixth Month. J. W. Markoe, New York.
75 *Comparison of Lesions Found Postmortem in Cases Diagnosticated Clinically as Eclampsia and Toxemia of Pregnancy. J. E. Welch, New York.
76 Simple Method for the Instillation of Normal Saline Solution into the Rectum. R. McPherson, New York.
77 Importance of the Antepartum Vaginal Examination. E. S. Gushee, New York.
78 Imperfect Development of the Large Intestine and of the Lower Part of the Small Intestine. C. G. Burdick, New York.
79 Growth of the Babies' Class. E. L. Coolidge, New York.
80 Pregnancy Complicated by Dermoid Cyst of the Ovary with Twisted Pedicle. (Operation.) J. W. Markoe, New York.
81 Abdominal Cesarean Section, as Performed at the Society of the Lying-In Hospital of the City of New York, with an Analysis of 186 Cases. R. McPherson, New York.

73. This article was published in The Journal, May 1, 1909, p. 1390.

74. **Gangrene of the Vulva Following Abortion.**—Markoe reports a case, with colored illustration, of moist gangrene of the vulva, vagina, and cervix, which was operated on, all the gangrenous tissue being cut away and care taken not to invade the underlying normal tissue. The conditions came on about ten days after an abortion at six months. The value of fresh air in the treatment of this case is emphasized and a plea is made for the extension of the method in all septic cases. The pathology of the condition is discussed.

75. **Eclampsia and Toxemia of Pregnancy.**—Welch contrasts the opposing views in relation to the various forms of toxemia of pregnancy, one school recognizing two clinically distinct entities, the other considering the different forms of toxemia of pregnancy, including eclampsia, as closely related, if not identical, conditions. He presents the findings in 12 cases in which the clinical diagnosis was made of either eclampsia or toxemia of pregnancy. He discusses the various etiologic suggestions that have been made.

American Journal of Surgery, New York

May

82 *Surgical Importance of Visceral Crises in the Erythema Group of Skin Diseases. H. M. Silver, New York.
83 *Use of Fluorescent Salts (Eosin, Scarlet Red, etc.) in the Practice of Surgery. V. Pleth and V. W. Pleth, Guadalajara, Mexico.
84 Operation for Ingrowing Toenail. J. E. Jennings, Brooklyn.
85 *Scar Tissue—Its Prevention and Obliteration. C. H. Duncan, New York.
86 Electrically Lighted Pharyngoscope. A New Method of Examining the Nasopharynx and Larynx. H. Hays, New York.
87 Treatment of Habitual Scoliosis by Passive and Active Correction. T. Toepel, Atlanta, Ga.
88 Ligation of Common Iliac Artery Under Unfavorable Conditions. E. Lanphear, St. Louis.
89 Penetrating Wound of Abdomen without Symptoms. C. H. Jaeger, New York.

82. **The Visceral Crises in Skin Diseases.**—Silver discusses the importance to the surgeon of the visceral crises in the erythema group of skin diseases. He quotes Osler's classification, into 5 groups, of which 3 are of importance to the surgeon, as being likely to lead to operation on a mistaken diagnosis. He has found 9 cases, on examination of the literature, in which the patients were operated on, and adds a case of his own in which the patient was recently operated on, with

2 cases examined after death. He reports his own case in full. The groups of importance to the surgeon are (1) those cases in which the colic occurs in connection with pure angioneurotic edema (Quincke's disease); (2) those in which there is arthritis, associated with erythema or purpura and colic—the group described by Henoch; (3) a group most difficult to recognize, in which there is only recurring colic and nothing else. Silver discusses angioneurotic edema and Henoch's purpura, with the differential diagnosis between the latter and intussusception and appendicitis respectively. His experience with one case and studies of reported cases, lead him to emphasize Osler's practical lesson, namely, "first, in children with colic the greatest care should be taken to get a full history, which may bring out the fact of previous attacks, either of skin lesions or of arthritis, or of intestinal crises; and secondly, make the most careful inspection of the skin for angioneurotic edema, purpura or erythema," and Silver adds, in an accurate examination of the blood, with a differential count, we have the most important aid in differentiating those cases which need surgical treatment.

83. **Fluorescent Salts in Surgery.**—Pleth and Pleth report results of the application of a 5 to 10 per cent. watery solution of eosin, covered with a thin layer of cotton to exclude dust and exposed to sunlight in stitch abscess, suppurating incised wounds after operations for osteomyelitis, in infected joints and eczema; also by injection in gonorrhea, and in combination with copper sulphate internally in actinomycosis. They report also the usefulness of scarlet red suspended in olive oil, vaselin or zinc ointment in proportion of from 5 to 10 per cent. The wound should be thoroughly dried, and the salve applied, not too thickly, and allowed to remain for from 12 to 24 hours, when it should be removed, and the wound covered with plain vaselin or olive oil. This treatment is renewed every 2 or 3 days. Enormous skin defects have been remedied by this method. In spite of the filthiness of the Mexican Indians and of their insanitary surroundings the good results uniformly obtained speak for the value of the treatment. The non-toxicity of eosin and scarlet red permits of their use in almost any place. The only drawback is that they stain the clothes.

85. **Scar Tissue.**—Duncan describes the technical details in operating which tend, by reducing irritation and producing accurate approximation, to bring about scar-free healing. The incision should be made with the scalpel at an angle of 60 degrees with the perpendicular. The advantages are cosmetic, lessened cause for pain and deformity, and less liability to keloid. He particularly states that the technic of wound treatment given in no way interferes with aseptic technic. The original article must be read by those interested, as it scarcely lends itself to abstracting.

New York State Journal of Medicine, New York

May

90 *Diagnosis and Operative Treatment of Simple Fracture. L. A. Stimson, New York.
91 Treatment of Fractures. D. L. Kathan, Schenectady, N. Y.
92 *Radical Conservatism in the Treatment of Compound Fracture. M. B. Tinker, Ithaca, N. Y.
93 *Further Exposition of Abduction Treatment of Fracture of the Neck of the Femur. R. Whitman, New York.
94 *Volkmann's Ischemic Paralysis and Contracture. R. H. Sayre, New York.
95 *Relative Aortic Incompetency of Muscular Origin. J. M. Anders, Philadelphia.
96 *Ophthalmia Neonatorum. J. A. Gehrung, New York.
97 *Thorax Transfixion. E. E. Hyland, Utica, N. Y.
98 *Physical Training of Children. F. W. Sears, Binghamton, N. Y.

90, 92, 93, 95. Abstracted in THE JOURNAL, Feb. 20, 1909, pp. 655, 656.

94. **Volkmann's Ischemic Paralysis.**—Sayre reviews the literature of the development of our knowledge on this subject, and says that the typical cases are almost all the result of fractures of the upper extremity, the great proportion being the bones of the forearm, and almost all in children. It commonly results from pressure applied in treatment. The Esmarch bandage is responsible for many cases. The pain is often severe. The prognosis is grave and depends largely on the amount of injury to the muscles. Electricity and massage have proved almost universally useless in restoring vitality. He describes the operative procedures.

96, 98. Abstracted in THE JOURNAL, Feb. 6, 1909, pp. 496, 497.

97. **Thorax Transfixion.**—Hyland reports a remarkable case of a man of 38, who, while operating an edging machine, was struck in the chest and thrown unconscious to the floor by a piece of "edging," which was found protruding from both sides of the body. It was part of a rough board, 1 by ¾ inch at the end which entered the body and 1 by ¼ inch at the other end, and 23 inches long. It entered the chest through the left nipple, breaking the rib and depressing it, punctured both lungs, and passed through the arm about three inches below the shoulder joint, posteriorly to the humerus, pinning the arm to the body. The man was taken 50 miles by train to St. Elizabeth's Hospital, Utica. He had recovered consciousness and was perfectly conscious up to the administration of the anesthetic. Hyland enlarged the openings, and with a great deal of force drew the edging loosely (? sic) through the body in the direction in which it had started. The resulting hemorrhage was insignficant. The right lung collapsed below the seat of injury. On inspiration and expiration, the air passed freely through both openings. Free drainage by gauze and tubes was installed. The highest temperature recorded was 102.2 F. on the second day. At no time were there any pronounced symptoms of pneumonia. An eighth of a grain of morphin gave relief from the pain. Traumatic pleuritis on the right side set in, ultimately becoming empyematous, but with the well-established drainage it ran an uneventful course, and the man returned home ten weeks after the injury, the wounds having nearly healed. He suffered at first intensely from pain and swelling in the arm, which he was unable to move. The forearm extensors were paralyzed, but he has now regained his usual health and vigor. A photograph of the edging in the body before removal accompanies the article.

California State Journal of Medicine, San Francisco

May

99 *Intestinal Obstruction. C. G. Levison, San Francisco.
100 *Reminiscences of Indian Practice. F. Grinnell, Pasadena.
101 Vaccines. R. Patek, San Francisco.
102 Weak Foot. J. T. Watkins, San Francisco.
103 Treatment of Gonorrheal Inflammations by Use of Serums and Vaccines. G. E. Ebright, San Francisco.
104 Major Emergency Operations with Reference to Fracture of Skull and Wounds of the Abdomen. W. I. Terry, San Francisco

99. **Intestinal Obstruction.**—Levison discusses acute and chronic bowel obstruction and on the basis of an experience with a large number of patients treated by the various methods in use emphasizes the fact, that those treated with most success were those operated on early and in whom he has not hesitated to explore the abdomen after the diagnosis has been established. If the obstruction is easily and quickly found, all that is done is to open the distended loop, express the intestinal contents and perform an enterostomy as follows: Two sharp hemostats grasp a spot on a loop of distended intestine, the beaks being in juxtaposition. The intestine is then opened by a knife puncture between the two points; the loop of intestine, having been drawn out of the abdominal cavity, is held close to a basin, so that the fluid can escape from the gut without any soiling of the abdominal cavity. As clamps are attached to the loop or gut, there is no possibility of the intestine escaping back into the abdominal cavity, and the opening, therefore, is under absolute control. This opening may be closed with a purse string suture or an enterostomy can be made. He has treated a number of patients, seen early, in this manner and intends to continue the method, as it is rational, simple and easily carried out without much shock. Drugs, such as atropin and eserin, in his experience, have been of no avail.

100. **Indian Practice.**—Grinnell's paper is an interesting folklore article drawn from his experience among American Indians. The methods of the quack indicate as high a degree of civilization among them as among ourselves. He pays particular attention to child-birth and the existence of a period of isolation for menstrual uncleanness.

Northwest Medicine, Seattle, Wash.

May

105 Leukemia. B. Thomas, Walla Walla, Wash.
106 *Treatment of Tetanus. C. M. Doland, Spokane, Wash.
107 *Industrial Eye Injuries. W. Johnston, Spokane, Wash.
108 Fracture of the Greater Tuberosity Complicating Dislocation of the Shoulder. B. Hahn, Seattle, Wash.
109 Three Important Time Saving Urinary Tests. H. R. Harrower, Chicago.

106. **Tetanus.**—Doland, after discussing the bacteriology and pathology of tetanus, reports cases and considers the various methods of treatment of recent suggestion. He recommends the opening and closing of all punctured wounds and the use of tetanus antitoxin in suspicious cases and all Fourth of July wounds, together with a 2 per cent. solution of magnesium sulphate, preferably by intraspinal injection. Should these measures fail, Baccelli's carbolic acid injections should be used. If the magnesium sulphate does not subdue symptoms he advises giving large doses of chloral, and finally stimulates the patient, preferably with whiskey, and shuts out all external stimuli to nervous excitation.

107. **Industrial Eye Injuries.**—Johnston divides the injuries, in a territory devoted to agriculture, lumbering and mining, into the following four classes:

1. Those occurring as the result of handling high explosives in mining and railroad construction.
2. Those occurring from the bursting of locomotive oil and water gauges.
3. Those occurring in mills, foundries, machine shops, and the building trades.
4. Those occurring in the agricultural pursuits.

He discusses each class separately, with analysis of cases. The majority of these injuries are preventable, and he advocates: (1) Government inspection of the manufacture of all explosives; (2) licensing of "powder men"; (3) protection of water and oil gauges by wire or plate glass screens; (4) the placing of guards on all emery wheels, lathes, etc.; (5) education of the laity as to the seriousness of even slight injuries when infected.

Alabama Medical Journal, Birmingham

May

110 The Sanatorium in its Application to Tuberculosis. S. G. Bonney, Denver.
111 Rabies and the Pasteur Treatment. E. M. Mason, Montgomery, Ala.
112 *Relations of Medicine to other Learned Professions, Economics and Government. G. T. McWhorter, Riverton, Ala.

112. **Relation of Medicine to Other Professions.**—McWhorter discusses the changes that have been brought about in the practice of medicine by those of environment, the crowding of population in the cities, the discoveries of science, etc., and considers the relation of the physician with the lawyer, the press, the legislature, the engineer, the educator and the social economist. He particularly contrasts the results of the old French Canal Company at Panama, with its disregard and ignorance of hygienic conditions, with those of the brilliant, hygienically conducted enterprise of Colonel Gorgas, and remarks that "the adverse forces of Nature may be scientifically controlled; they may not be ignored." To the general practitioner McWhorter says: "Do not misapprehend the dignity and importance of your efforts because of the humble station in life of your patients. The country doctor whose homely science restored Abraham Lincoln to health in boyhood days, probably made a larger contribution to the needs of humanity than did the brilliant surgeons who operated on Napoleon III or the Emperor Frederick. It might be well to remember this, gentlemen, as you sit at the bedside of some bare ankled girl or some freckle faced boy. Only a large perspective reveals the true relations of things."

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London

May 8

1 *Rheumatic Fever and Valvular Disease. N. Moore.
2 *Gallstones. H. F. Waterhouse.
3 Urachal Cyst Simulating Appendicular Abscess, Arrested Development of Genital Tract. A. H. G. Doran.
4 *Alcohol Injection Treatment for Neuralgia and Spasm. W. Harris.
5 Simple Operation for Complete Removal of Tonsils, with Notes on 900 Cases. G. E. Waugh.
6 Rare Cardiac Condition: Mitral Stenosis with Ball Thrombus in Left Auricle. A. M. Kennedy.
7 Sudden Death from Unsuspected Cardiac Lesion. H. Galt.
8 *Bilharzia Hæmatobia and Circumcision. J. F. Allen.
9 Rupture of the Pregnant Uterus from *Contre Coup* in a woman not in Labor. Operation; Recovery. J. Phillips.

1. **Rheumatic Fever.**—In the third Lumleian lecture Moore sums up the points which in this course of lectures he has endeavored to impress on the profession at large as follows: (1) Rheumatic fever is a single definite disease; (2) endocarditis is always an essential part of it; (3) its duration may extend over many years, and these circumstances, but half demonstrated as they necessarily are at present, are still the safest indications of method in the treatment of the disease.

2. **Gallstones.**—Waterhouse discusses the causation, the symptoms, results and the prognosis of gallstones. His firm belief is that the majority of flatulent dyspeptic women who attend medical out patient rooms with such wondrous regularity are really suffering from gallstones. Jaundice is the exception in gallstone, save when the stone is impacted in the common duct. We must distinguish between (1) inflammatory—i. e., microbic—jaundice, such as may result apart from cholelithiasis, e. g., as a sequel of cholecystitis; and (2) lithogenous jaundice, which is, at first, at any rate, a mechanical process due to blockage of the common duct by a calculus. Biliary colic is the most prominent trouble, but most patients do not complain of it, because the gallstones commonly remain in the bladder and do not enter the duct. Vomiting is a fairly frequent symptom and a usual one in biliary colic. During an attack of biliary colic the liver may be swollen and the gall bladder exceedingly tender. In treatment, besides morphin and hot fomentations, Waterhouse is convinced that antipyrin, 10 grains every hour until 40 grains have been taken, is a useful drug. The administration of chloroform and massage of the gall bladder he recommends with confidence, but only when all signs of inflammation are absent. He next discusses permanent obstruction of the biliary duct and infective cholecystitis. The most frequent causes of death are (1) microbic cholangitis; (2) perforation of the gall bladder and ducts; and (3) carcinoma of the gall bladder. He insists on promptness of operative intervention as soon as it appears indicated. He is convinced that an early cholecystotomy is a satisfactory operation and far less dangerous to the patient than the passage of a single stone *per vias naturales;* on the other hand, he knows none more difficult than choledochotomy or extraction of a stone from the common bile duct in a long-standing case.

4. **Alcohol Injections in Neuralgia and Spasm.**—Harris discusses this subject in relation to trigeminal neuralgia, clonic facial spasm and sciatica. He describes in detail the technic for trigeminal neuralgia, and is of the opinion that this method affords certain relief. It is also of great service in controlling chronic facial spasm, postinfluenzal supraorbital neuralgia, the facial pain of inoperative carcinoma of the tongue, tabetic neuralgia, etc.

8. *Bilharzia Hæmatobia.*—Allen contends that the entrance of the parasite is principally effected during bathing, and in his experience he believes that in the majority of instances the invasion took place through the urethra alone, but it is possible that it may enter the intestinal canal by the anus, or the lungs by infested water being sniffed in, but wherever it is found it has got to its final resting place directly from outside and has not reached it from the vascular system. The parasite undoubtedly does enter the stomach in drinking water, but it appears fairly certain that the gastric juice destroys it. The great majority of those infected are boys under the age of puberty, which fact he attributes partly to their greater bathing habits, partly to the ease with which the parasite can enter the urethra before the prepuce is retracted. During the act of bathing, the sac formed by the prepuce becomes filled with water, and a parasite would therefore have moisture, guidance, protection and time, every thing in fact to enable it to seize on a position so suited to it. He endeavored experimentally to establish the fact that the

parasite can not develop within the body, but must enter it in the mature form from without. With the consent of a patient, he injected many eggs of the parasite containing vigorous embryos into the bladder of one of the Indian hospital attendants. The man did not become affected, and remained at the hospital for some years, perfectly free from the complaint. This condition adds immensely to the importance of preventing it from entering the system. He considers it likely that the origin of the practice of circumcision in Egypt, as shown in sculptures dating 2,000 years before the captivity of the Jews, was really a sanitary measure, possibly directed largely against this particular infection. He insists on the importance, when bathing, of wearing close-woven drawers fitting tight round the waist and thighs, and not open anywhere; and also of drying the body thoroughly, particularly about the orifice of the urethra, on leaving the water. These measures, with circumcision, he believes would stamp out the disease in bilharzia infected regions, as the ova can not develop in the body.

British Medical Journal, London

May 8

10 Myopathy and Syringomyelia. Sir W. R. Gowers.
11 Antispasmodics and the Cure of Spasms. E. Smith.
12 Amaurotic Family Idiocy. F. J. Poynton.
13 An Epidemic of Tinea Cruris. J. O. Symes.
14 Landry's (Acute Ascending) Paralysis; Recovery. C. H. Cattle.
15 *Use of Certain New Chemical Tests in Diagnosis of General Paralysis and Tabes Dorsalis. G. W. Ross and E. Jones.
16 Treatment of Facial Paralysis Due to Mastoid Disease or to the Mastoid Operation. F. Sydenham.
17 Epidermolysis Bullosa. L. B. Cane.
18 Spirochæta Pallida. A. C. Coles.

15. New Chemical Tests in General Paralysis and Tabes.—Ross and Jones review our present knowledge concerning the cerebrospinal fluid in general paralysis, and describe two new diagnostic chemical tests for readily recognizing an excess of globulin in the cerebrospinal fluid, thus determining the presence of some parasyphilitic affection of the nervous system. It is essential to be sure that no blood or pus has contaminated the fluid to be examined. The tests are as follows: The Noguchi reaction consists in the addition of 0.5 c.cm. of a solution of 10 per cent. butyric acid in normal sodium chlorid solution to 0.1 c.cm. of the fluid to be examined; the application of heat; subsequent addition of 0.1 c.cm. of 4 per cent. sodium hydrate solution, with a further application of heat. The test tube should be read within three hours. A distinct opalescence is frequently found to occur, even in the normal, but in cases of general paralysis and tabes a characteristic precipitate of a peculiar flocculent character forms. The flocculi tend gradually to fall, so that after 24 hours at the latest the bottom of the tube is occupied with a fairly bulky precipitate, while the supernatant fluid is clear. In performing this test care must be taken to ensure the absolute purity of the butyric acid. The second test referred to is as follows: Two c.cm. of a saturated solution of ammonium sulphate are placed in a test tube, and 1 c.cm. of the cerebrospinal fluid is gently run on to the surface in the way done in the Heller nitric test for albumin. The formation of a ring at the junction of the two liquids constitutes a positive reaction. The ring is clear cut, thin, grayish-white, and has the thickness of a thin piece of paper. It should form within three minutes, and within half an hour it may be observed that the surface of the ring shows a delicate mesh appearance resembling a fine cobweb. Indirect illumination must be used, or it may escape detection.

The Noguchi test was applied in 15 syphilitic cases and 12 non-syphilitic. It was negative in all the latter except in one case of tuberculous meningitis. Among the negative cases were 5 of dementia præcox and 4 of tumor cerebri, conditions which are frequently difficult to distinguish from general paralysis. Among the 15 syphilitic patients were 12 untreated and 3 had been treated. None of the latter gave a positive reaction, while all the former did so. The 12 positive cases comprised 3 of tabes, 5 of general paralysis, 1 of tertiary syphilis, and 3 of syphilis of the nervous system. The test was thus positive without exception in all the cases of syphilis or parasyphilis in which the patients had not had recent treatment, and negative in all other cases examined. The ammonium sulphate ring test was applied in all the above cases, except 2 of tabes. The results agreed absolutely with those obtained by the Noguchi test, being positive whenever this was positive and negative whenever this was negative.

Medical Press and Circular, London

May 5

19 *Direct or Indirect Effects of Surgery or Surgical Lesions in Mental or Nerve Disturbances. W. Alexander.
20 Oatmeal in Treatment of Diabetes Mellitus. C. von Noorden.
21 Treatment of Gonorrhea in General Practice. J. E. McCracken.
22 Tiodin in Treatment of Disseminated Sclerosis. W. Murrell.

19. Effects of Surgery in Mental or Nerve Disturbances.—Alexander relates five cases representing several classes of mental and nervous disease in which cure was effected by operative intervention, illustrating the following facts:

1. The mysterious effects of pressure on the heel in producing insanity, and its immediate cure when the pressure was removed.
2. The direct effects of a depressed fracture of the skull on the onset of acutely maniacal symptoms and the immediate relief through the elevation of the depressed bone.
3. The presence of a retroverted uterus in a case of delusional suicidal insanity, and the good effect of the cure of the displacement on the insanity.
4. The baneful influence of metrorrhagia on the mental state and the probable rescue of the patient from a lunatic asylum by operation.
5. The failure to connect as cause and effect a lipoma of the back and intense intercostal neuralgia, and the complete cure of the patient by operation.

In regard to the question of operating, therefore, in mental and nervous conditions, Alexander considers intervention indicated in cases in which the condition of the patients is beyond their control, and not in that class in which the patient will refer to his "terrible agony" with a placid face. The really suffering patient does more writhing in agony than talking about it. In the second place, Alexander holds that if there is a distinct disease that ought to be treated in an ordinary sane individual, and if that disease occurs intercurrently in mental disturbance of unknown causation and acute character, then that disease should be treated, and can be treated successfully notwithstanding the mental condition, and with the hope that the mental symptoms also may be cured.

Clinical Journal, London

May 5

23 Common Affections of the Skin: Their Exact Diagnosis and Treatment. J. Galloway.
24 Pernicious Anemia. H. French.
25 Extraperitoneal Ruptures of the Bladder. E. W. Roughton.

Journal of Tropical Medicine and Hygiene, London

May 1

26 *Rice and Beriberi. W. Fletcher.

26. Beriberi.—Fletcher describes the various modes of examination used at the Kuala Lumpur Lunatic Asylum. He points out that in communities where beriberi occurs, those who eat "cured" rice appear to escape. This "cured" rice is a yellow rice prepared as follows: The unhusked grain or paddy is soaked in water for from twelve to twenty-four hours, or even longer. It is then heated in vessels containing water over a slow fire until the husks burst. The third stage in the preparation consists of spreading out the grain and drying it in the sun; when this has been completed, it should be possible to separate the husk from the seed by light rubbing between the palms of the hands. The rice is then husked by pounding or taken to the mills, where the same process is effected by the millstone, but it is not polished by the rapidly revolving stones against the fine wire gauze after the manner of the "white rice." Fletcher considers it proved that the elimination of white uncured rice from the diet prevented the occurrence of beriberi in the "cured" rice group of patients at the Kuala Lumpur Lunatic Asylum, and he recommends the adoption of this rice and the avoidance of the highly polished white variety, no matter how good the quality.

Practitioner, London

May

27 *Use and Abuse of Proprietary Foods in Infant Feeding.* E. Cautley.
28 Surgery of Inguinal Hernia. R. Morison.
29 Therapeutic Value of Radium and its Application. J. M. H. MacLeod.

30 *Diagnosis of Transitory Hemiplegia in Elderly Persons. F. H. Edgeworth.
31 *Acute Appendicitis. A. E. Maylard.
32 *Variations of Arterial Blood Pressure in Arteriosclerosis. O. K. Williamson.
33 *The Rheumatic Infection. W. H. M. Telling.
34 *Labyrinthine Nystagmus and Labyrinthine Disease. D. McKenzie.
35 Signs and Symptoms of Thoracic Aneurism. H. L. Tidy.
36 Diet of the Tuberculous Patient. S. H. Hall.
37 Advances in Clinical Pathology. W. D'E. Emery.
38 Value of Mouth Washes. S. P. Mummery.
39 Chloroform Anesthesia. R. E. Humphry.

30. **Transitory Hemiplegia.**—Edgeworth reports four cases of transitory hemiplegia in elderly persons, and says that on consideration of these cases, it is seen that temporary attacks of aphasia, or aphasia and right hemiplegia, or left hemiplegia, or vertigo, or mental confusion, may be associated with (1) no arteriosclerosis, no general hypertonus, no rise in blood pressure; or (2) arteriosclerosis, but no general hypertonus or rise in blood pressure; or (3) arteriosclerosis, general hypertonus, and rise in blood pressure. The theory of a localized hypertonus, an arterial spasm, in cerebral blood vessels affords an adequate explanation of these various cerebral phenomena. It accounts for their often sudden appearance and for their equally sudden and complete disappearance. Such arterial spasm may be limited apparently to one or more cerebral arteries, or may form a part of a more general vascular constriction. In the latter case, it must be supposed that it is more marked in cerebral than in other arteries. Such a theory may be supported by the facts that (1) localized arteriospasm may occur in parts of the body other than the brain; (2) in some cases the paralysis may be preceded by chronic spasm in the subsequently paralyzed limb or the attack may consist of chronic spasm only, resembling the unilateral chronic spasms producible by digital pressure on one carotid; (3) a striking parallelism between the state of the radial artery and the cerebral phenomena; (4) the discovery of vasoconstrictors in cerebral arteries discloses a path for the passage of impulses, which may pass through these fibers. The accurate diagnosis of such cases is important, lest they be mistaken for cases of cerebral hemorrhage or thrombosis. Vasomotor dilators will rapidly effect a cure in a case due to vascular spasm, but they constitute the worst possible treatment for cases of thrombosis or hemorrhage. With regard to the tendon jerks and skin reflexes, all that can be said is that if the plantar reflex is extensor in a case of suddenly occurring hemiplegia, the cause is organic; if not extensor, the disease may exceptionally be organic, or it may be due to vascular spasm. A similar uncertainty attends any deduction drawn from the state of the tendon jerks. The onset of hemiplegia due to vascular spasm is usually unattended by loss of consciousness, but loss of consciousness does not always occur in hemorrhage or thrombotic cases. Hemiplegia due to vascular spasm is in some, but not all, cases attended by a rise of blood pressure. The differential diagnosis of the first attack of hemiplegia is therefore difficult. Recurrent cases of vascular spasm may end in permanent palsy due to cerebral softening. The administration of vasodilators in quantity sufficient to make the pulse soft, rapidly cures the spasmodic form, and probably postpones the day of permanent paralysis.

31. **Acute Appendicitis.**—Maylard investigates the following questions: 1. Should aperients or sedatives be administered in the early stage of the attack? 2. Should heat or cold be applied locally? He concludes that the early stage of acute appendicitis is best treated by (1) the administration of small doses of saline aperients—one dram of magnesium sulphate every hour till the bowels move; (2) the local application of heat to the iliac region; (3) the subcutaneous injection of a small dose—say 1/6 grain—of morphin, for the sole purpose of relieving the immediate acuteness of the pain.

32. **Arterial Blood Pressure in Arteriosclerosis.**—As the result of comparative investigation in cases with and without arteriosclerosis, Williamson concludes that the main difference between the arteriosclerotic and the non-arteriosclerotic cases would seem to be that there is produced in the former, owing to an abnormal degree of arterial constriction, as the result of influences which diminish this constriction and produce vascular relaxation, a more marked effect than usual, and, in consequence, either a greater fall of pressure, or a fall of pressure when in the non-arteriosclerotic cases there would be a rise. This difference is evidenced more especially in the diurnal variations, but also to a less degree as the result of the ingestion of food.

33. **The Rheumatic Infection.**—Telling discusses the theory of rheumatism in relation to other affections that are commonly considered rheumatic. Rheumatism is essentially a disease of childhood and early adult life. He describes the mental and physical type of the rheumatic child, who has long lashes, clear, bright-colored complexion, hair not infrequently reddish or auburn, and is "pretty"—possessing certain refinement and delicacy of features. He does not believe that iritis occurs as a manifestation of rheumatism; it is generally due to gonorrhea, syphilis or gout. He discusses the arthritic phenomena, chorea, the heart lesions and the skin lesions, particularly erythema nodosum, the organic connection of which last with rheumatism he doubts.

34. **Labyrinthine Nystagmus.**—McKenzie sums up his investigations as follows:

1. When destructive processes cause perceptive deafness they generally cause a proportionate amount of damage to the vestibular organ of equilibrium.
2. An exception to this rule is found in otosclerosis, in which the amount of loss of hearing seems to bear but little relation to the amount of impairment of the vestibular sense.

Annales de Dermatologie et de Syphiligraphie, Paris

April, X, No. 4, pp. 225-289

40 *Morbid Fluxions and Alternations in Disease, especially in Dermatology. (Les fluxions et alternances morbides.) L. Brocq.
41 The Newer Microbiologic and Serologic Means for Diagnosing Syphilis. C. Levaditi. Commenced in No. 2.

40. **Fluxions and Alternations in Disease.**—Brocq applies the term of *poussée fluxionnaire* to the element in pathology which determines the outbreak of symptoms in certain cases. The simplest form is the reaction which follows the ingestion of some substance which the organism is unable to tolerate; there may be a rash or gastrointestinal disturbances or both as the manifestation of the reaction to the disturbing substance. The individual susceptibility, generally inherited and familial, decides the nature and intensity of the reaction. Gout is a typical example of the other form of the *poussée fluxionnaire:* After a longer or shorter period of freedom from symptoms, the explosion occurs apparently spontaneously. In both these forms it seems that the intoxications and autointoxications of the organism, defective functioning of certain viscera, state of the nervous system, etc., pile up to induce a condition in which the slightest occasional cause may supply the spark and induce the explosion, the fluxion, the wave of congestion; and the wave flows to the point of least resistance at the moment. This point of lesser resistance determines the localization of the symptoms in each individual case, but this point may vary each time. This assumption throws light on many otherwise inexplicable morbid and therapeutic phenomena.

Annales de Gynécologie et d'Obstétrique, Paris

April, XXXVI, No. 4, pp. 193-256

42 *Treatment of Pernicious Vomiting of Pregnancy. (Traitement des vomissements incoercibles de la grossesse.) V. Wallich.

42. **Pernicious Vomiting of Pregnancy.**—Wallich recommends isolating the patient in the care of a nurse and abstention from anything by the mouth for twenty-four or forty-eight hours. Fluids may be supplied by enemas of physiologic salt solution or possibly by very cautious subcutaneous injections. Drugs must be given prudently on account of the insufficiency of the emunctories, giving the preference to chloral by the rectum and to inhalation of oxygen. The diet can be regulated as tolerated, first nothing, then water alone, then half milk, gradually returning to a full milk-vegetable diet. Pinard advises interrupting the pregnancy as soon as the pulse rate is over 100 or keeps permanently about 90, even if the amount of urine approximates normal, if the incessant vomiting and the nervous symptoms persist unmodified.

Bulletin de l'Académie de Médecine, Paris

April 20, LXXIII, No 16, pp 443-460

43 *Significance of Reactions to Revaccination. (Des réactions revaccinales et de leur signification.) Kelsch, Camus and Tanon

43. Summarized in Paris Letter May 8, page 1509.

Presse Médicale, Paris

April 17, XVII, No. 31, pp. 273-280

44 *Amyloid Degeneration of the Kidneys. (Dégénérescence amyloïde des reins.) J. Castaigne
45 Apraxia. (Valeur sémiologique de l'apraxie.) G. Dromard and Pascal.

April 21, No. 32, pp. 281-288

46 *Inflammation in Testicles in Staphylococcus Sepsis. (Orchi épididymite au cours des staphylococcémies.) Quénu.
47 Diagnosis of Facial Neuralgia. J. A. Sicard
48 *Spengler's Immunizing Bodies (I. K.). (Les Corps immunisants de Carl Spengler.) A. Bergeron.

April 24, No. 33, pp. 289-296

49 The Wire Filament Galvanometer and Electrocardiography. (Le galvanomètre à corde.) G. Weiss
50 Hematocele from Rupture of Small Blood Cyst in the Ovary, Simulating Ruptured Extrauterine Pregnancy. P. Jayle.
51 Septic Gastritis of Buccal Origin. G. Mahé.

April 28, No 34, pp. 297-304

52 Negative Results from Red Light in Measles. (Rougeole et lumière rouge.) A. Gouget

May 1, No 35, pp 305-312

53 Serum Anaphylaxis. (La séro anaphylaxie.) M. Arthus.

44. Pathogenesis of Amyloid Degeneration of the Kidneys.—In connection with a case of purulent pleurisy accompanied by intense albuminuria, Castaigne discusses the effects produced on the organism by an alien albumin introduced into the circulation. The injected albumin retains its alien characteristics wherever it is refound in the blood; the organism discriminates between the albumin that belongs to it and the alien albumin and retains the former while striving to get rid of the latter. The pus in purulent pleurisy contains large amounts of alien albumin, and if the pleura retains its normal absorbing power, this alien albumin is absorbed into the blood and is eliminated through the kidneys. The absorbing power of the pleura is much reduced in pneumococcus and tuberculous affections, but seems to be retained unimpaired in streptococcus pleurisy. The alien albumin is thus absorbed and is liable to injure the arteries on its way to the emunctories. The kidneys are overtaxed by this extra work imposed on them and the parenchyma suffers sooner or later. The resulting amyloid degeneration of the kidneys is always accompanied by chronic nephritis from the same cause, but the kidneys retain their permeability. Consequently, there is no necessity for restricting the proportion of nitrogen in the diet. These patients need food rich in albuminoids to compensate for the losses of nourishing materials, avoiding merely sodium chlorid and albumins difficult of digestion; such as raw white of egg. The prognosis depends on whether the purulent process is acute or chronic, as in the acute cases, without cachexia, the tendency is for the amyloid degeneration to subside in time after the cause is removed. On the other hand, an acute process may entail the severest changes in a few weeks. He found amyloid degeneration of liver, kidneys and spleen in three patients who had succumbed in three, four and six weeks to purulent pleurisy.

46. Orchitis and Epididymitis in Staphylococcus Septicemia.—In a case described the *Staphylococcus aureus* was cultivated from the blood of a previously healthy man of 34 presenting signs of severe general infection about a week after development of a carbuncle on the back. He was convalescing a week later when signs of inflammation of the testicles and epididymis were observed and the staphylococcus could also be cultivated from the puncture fluid. The organism seeking to get rid of germs tries to eliminate them not only through the liver and kidneys, but also by the glands, which explains the orchitis in certain affections. Roger found the testicles involved in 48 of 55 smallpox cadavers in 1901-2. The orchitis, parotitis and tonsillitis in certain diseases, such as mumps and smallpox, are not complications, but localizations of the infection. Quénu has been unable to find any case on record, however, in which orchitis was recorded in connection with a primary staphylococcus septicemia in the absence of urethritis.

48. The Red Corpuscles as the Receptacles of the Antibodies.—Bergeron presents and discusses the conceptions on which Spengler bases his treatment of tuberculosis. The latter assumes that the tuberculous individual is almost invariably infected with both human and bovine tubercle bacilli, and that treatment should be directed against both. He also insists that the red corpuscles are the principal receptacles for the antibodies, not the serum. The antibodies pass into the serum only when the red corpuscles become destroyed and they stay free in the serum only a very short time as they are rapidly taken up by the leucocytes. Consequently, Spengler asserts, specific treatment of tuberculosis should be by means of the red corpuscles of animals which have been powerfully immunized against tubercle bacilli of both types, human and bovine. The red corpuscles of these animals contain the antibodies, agglutinins, precipitins, bacteriolysins and antitoxins needed for effectual treatment of the infection, and by isolating and dissolving the red corpuscles we have a preparation, the Spengler I. K. (*Immunkörper*) which seems to be giving highly encouraging results in the clinic. Bergeron's own experience with it has not been sufficient for definite conclusions, but to date his results confirm the statements of others in regard to the frequent benefit even in the advanced and the clinical cure in the mild and moderate cases.

Semaine Médicale, Paris

May 7, XXIX, No 18, pp 205-216

54 Improved Stain for Neuroglia. Victoria Blue-Osmo chromoacetic Technic. (Nouvelle méthode de coloration pour l'étude de la névroglie—cellules et fibrilles.) J. Lhermitte and A. Guccione
55 *Arrest of Hemorrhage in Palliative Operations on Cancerous Cervix. (L'hémostase dans l'abrasion du col utérin cancéreux.) R. de Bovis.

55. Arrest of Hemorrhage in Palliative Operations on Cancerous Uterine Cervix.—Instead of curetting, de Bovis amputates the lower part of the cervix, keeping inside the limits of the cancerous tissue, believing that the smooth surface left is an improvement over the ragged results of curetting. To ensure hemostasis or arrest hemorrhage he clamps with narrow bladed forceps the wall of the cervix in the groove made preliminary to the amputation. The results have been very good. In one case a young woman survived for a year at least after this palliative amputation. It obliterates the vessels in the cervix and leaves a smooth wound which oozes very little. The Museux forceps used for the purpose are generally left in place for a day or two, but may be left for a week without inconvenience.

Berliner klinische Wochenschrift

May 3, XLVI, No. 18, pp 813-860

56 *Experimental Tuberculosis with Cavity Formation in the Lungs. (Experimentelle kavernose Lungentuberkulose.) P. H. Römer
57 *Plastic and Cosmetic Operations. E. Holländer.
58 Intracellular Parasite the Alleged Cause of Yellow Fever. (Zur Aetiologie des gelben Fiebers.) H. Seidelin
59 *Rachitis from Lime Starvation. (Der Kalk in der Pathologie der Rachitis.) J. A. Schabad
60 Theory and Technic of Serum [illegible] of Syphilis and Testing of Serums. [illegible] Technik der "Wassermannschen" [illegible]bemessung der gepulften Seren.) L. Meyer
61 *Differential Stain for Tubercle Bacilli. (Weiterer Beitrag zu meiner neuen Differentialfärbungsmethode der Tuberkelbacillen.) D. Gasis (Athens.)
62 Needle Fulguration as Aid in Cancer Operations. (Anwendung der Forest'schen Nadel zur Unterstützung von Krebsoperationen.) M. Cohn
63 Study of Partial Situs Inversus. C. Schelenz. Commenced in No 17

56. Experimental Tuberculosis with Cavity Formation.—Römer relates experiences which show that guinea-pigs previously rendered tuberculous respond to a severe new infection by production of cavities in the lungs. Animals with chronic tuberculous processes display exceptional resistance to new tuberculous infection, and the appearance of cavities in the lungs seems to be thus to a certain extent an immunity phenomenon. In long series of experiments the guinea-pigs all developed this tendency to cavities in the lungs under the same conditions with great constancy, thus confirming the assertions of von Behring and Orth in regard to the produc-

tion of cavities. The facts observed suggest also that in the majority of cases of pulmonary tuberculosis in man the disease is a reinfection from some old tuberculous process elsewhere—a metastatic autoinfection.

57. **Cosmetic Operations.**—Holländer gives illustrations of a number of cases of deformity of the nose or breast, causing much disfigurement, which he was able to correct with gratifying results. In one case paraffin injected to fill out the breasts had settled into knobs adherent to the skin and very disfiguring. He made a circular incision in the mamilla through which he was able to scrape out the twelve paraffin bunches without a visible scar and with excellent results. In other cases he filled out shrunken breasts with a mixture of human fat and mutton tallow. The absorption proceeded more slowly and the reaction was the more intense the smaller the amount of human fat in the mixture. The effect a year later was excellent in every instance; the human fat was obtained from excised lipomas. In another case disfiguring hypertrophy of one breast was remedied by turning back the breast from a long incision below and scraping out about 2.2 pounds of the breast tissue, which was found in fatty degeneration. The breast was then replaced, pushing it up to be on a level with its mate, cutting out a strip of superfluous skin below, about 3 cm. wide. He recommends this operation even for bilateral hypertrophy. He has been able to remove glands in the neck even down to the chin through an incision above the edge of the hair and thus invisible. Tumors in the brow were removed through a small incision in the eyebrow. By applying superheated air to wounds after suture, the epidermis on each side is mobilized for a little distance without injuring the suture or ligature. When the edges of the wound meet without the least tension the resulting scar is practically invisible, and this is ensured by the application of superheated air. His experience with paraffin in the treatment of deformity of the nose has been disappointing. In case of loss of the bridge of the nose he cuts out the bone and turns the flap over downward, in such a way that the skin of the nose forms the under lining and the bone the support for the tip of the nose. He then draws down from the brow a flap of skin and forms the nose of it. If there is too little bone he implants one or more slices from the tibia. By this technic the tip of the nose has a most natural aspect. The transplantation of a piece of the tibia has many advantages. Some of his rhinoplastic operations were done eight or ten years ago, and the new-formed nose has proved its permanency and cosmetic appearance. He generally works from within the nose to save a scar.

59. **Rachitis from Lime Starvation.**—Schabad remarks that the deficit in lime may result from inadequate intake or from defective absorption with normal intake. Breast milk may be deficient in lime, and it is important, he says, to note the lime contents of breast milk, as well as its proportion of fat, albumin and carbohydrates. It is possible that a preparation of lime, phosphorus and cod-liver oil might increase the retention of lime, although in his experience no benefit was derived from them except in rachitis. It is important to change the wet nurse in case the lime content of the breast milk can not be kept normal. If cow's milk is given it should not be diluted too much, giving at least one-third milk. The slightest deviation from normal in digestion or the digestive tract should be promptly treated to ward off disturbances in the intestinal functions which might affect the lime metabolism unfavorably. Rachitis due to lime starvation is liable to induce clinical phenomena more readily than true rachitis, but severe rachitic disturbances in a child exclude the pseudo-rachitis from lime starvation. During the onset of rachitis there is increased elimination of lime and phosphorus, the latter predominating, but in pseudo-rachitis from lime starvation the elimination of lime predominates.

61. **Differential Stain for Tubercle Bacilli.**—Gasis' stain is based on the property of tubercle bacilli to resist the action of alkalies. He regards this "alkali-proof" condition as the only property peculiarly restricted to tubercle bacilli. Smegma bacilli, etc., are not "alkali proof."

Deutsche medizinische Wochenschrift, Berlin

April 29, XXXV, No. 17, pp. 745-784

64 *The Large Intestine. (Zur Physiologie und Pathologie des Dickdarms.) T. Rosenheim.
65 Progress in Esophagoscopic Treatment of Swallowed Foreign Bodies. (Ueber Fortschritte in der oesophagoskopischen Behandlung verschluckter Fremdkörper.) W. Brünings.
66 *Research on the Mechanism that Stimulates and Checks the Work of the Gastric Glands. (Zur Analyse des Erregungs- und Hemmungsmechanismus der Magendrüsen.) B. Molnar.
67 *Blue Electric Arc Light in Treatment of Suppurating and Granulating Wounds and Leg Ulcers. (Der therapeutische Wert der Bestrahlung granulierender und eitriger Wunden und Unterschenkelgeschwüre mit blauem Bogenlicht.) P. Richter.
68 Contraindications to Finsen Treatment of Lupus. (Kontraindikationen des Finsen Verfahrens.) M. Piorkowski.

64. **Pathology of the Large Intestine.**—Rosenheim demonstrates that the different segments of the colon have a peculiar independence in both normal and pathologic conditions. There may be localized disturbance in the functions, causing retention of feces in the segment involved. Obstinate constipation may occur localized solely in the sigmoid flexure or at some point in the colon. The diagnosis requires palpation of the large intestine during the period of constipation. He allows the patient to go for two or three days without a passage, in order to examine instructively the large intestine in detail. This is the only way to learn the exact condition in the bowel and the seat of the disturbance as a guide to treatment. The comparative emptiness of the segment of the intestine below the point is instructive. These localized disturbances are sometimes the most distressing symptom of a general neurosis or they may reveal some affection in adjoining organs.

66. **Analysis of the Excito-Inhibiting Mechanism of the Stomach Glands.**—This article is supplementary to Bickel's, summarized in these columns, page 1800. The details of the experiments and metabolic findings in the dogs with "nerveless" blind pouch stomachs are tabulated and compared.

67. **Blue Arc Light in Treatment of Wounds and Leg Ulcers.**—Richter claims that an ordinary arc light with reflector and blue glass screen has the same healing action as sunlight, and that it has a powerful influence in promoting the healing of granulating and suppurative wounds and leg ulcers. It cleans up the infected and dead masses, stimulates the production of granulations and the growth of epidermis, and relieves pain and makes cauterization, powders and salves unnecessary. The scar left is more elastic and resistant, softer and painless. All this is the result of the direct influencing of the arterial blood supply and of the stimulation thus provided for the regenerating tissues.

Medizinische Klinik, Berlin

April 25, V, No. 17, pp. 613-648

69 Alcoholic Changes in Muscles. (Alkoholistische Muskelveränderungen.) R. Bing.
70 *Tests of Pancreas Functioning by Determination of Trypsin in the Stools. (Prüfung der Pankreasfunktion durch Trypsinbestimmung in den Fäzes.) E. Müller and H. Schlecht.
71 *Jerky Expiration from Pulsating Aneurism. (Exspiratio aneurysmatis pulsatione saccata.) N. Ortner. Commenced in No. 16.
72 Ordinary External Use of Chrysarobin Free from Danger. (Birgt die übliche äussere Behandlung mit Chrysarobin irgend welche Gefahren für den Kranken in sich?) Wolters.
73 *Coincidence of Epigastric Hernia with Gastric Ulcer. (Zusammentreffen von Hernia epigastrica mit Ulcus ventriculi.) H. Ury.
74 Easily In[illegible] for Saline Infusion. (Einfacher leicht [illegible] sterilier Infusionsapparat für physiologische [illegible].) F. Orland.
75 Artificial Extract for Serodiagnosis of Syphilis. (Ein künstlicher Extrakt zur Anstellung der Luesreaktion.) W. Schürmann.
76 *Diuretic Action of Potassium Bitartrate. (Wirkung des Tartarus depuratus.) O. Burwinkel.

May 2, No. 18, pp. 649-686

77 Immunity Processes from Surgical Point of View. (Chirurgie und Immunitätslehre.) G. Schöne.
78 Mode of Infection in Congenital Syphilis. (Gibt es eine Syphilis congenita ex patre?) H. Rietschel.
79 Chronic Glanders in Man Cured by Injection of Killed Glanders Bacilli. (Ueber chronischen Rotz beim Menschen und seine spezifische Behandlung und Heilung durch abgetötete Rotzbazillen.) K. Zieler.
80 Physical Therapy. Loewenthal.
81 Hydrotherapy of Pulmonary Tuberculosis. (Die Hydrotherapie der Lungenschwindsucht.) A. Moeller.

82 Complication of Delivery by Myoma. (Geburtskomplikation durch Myom.) E. Hartog.
83 Chemistry of the Sputum. (Zur Chemie des Sputums.) P. Falk.

70. **Improved Tests of Pancreas Functioning.**—Müller has applied to the stools his method of determining the proteolytic action of a ferment by the eating out of a hole in solidified serum on which the drop containing the ferment has been deposited. This dimpling (*Dellenbildung*) reveals the proteolytic strength of the ferment in the drop and the absence of dimpling shows that the ferment is absent or inactive. A drop of thin stool causes dimpling or not according as it contains pancreatic trypsin or not. The dimpling demonstrates that the pancreatic duct is permeable and that the pancreas tissue is functioning more or less normally. Negative findings indicate complete occlusion of the pancreatic duct or some severe disturbance in the secreting function of the pancreas. In his research, absolutely negative findings were never obtained except with organic affections of the pancreas, but it is possible that they might occur with purely functional insufficiency. This serum plate dimpling test is reliable but rather inconvenient for the general practitioner, and he has accordingly, with Schlecht, devised a still simpler method based on Sahli's test of pancreas functioning by having the patient ingest a "glutoid" capsule containing iodoform or salol. These capsules are hardened in formaldehyd and resist the action of the gastric juice and are dissolved only by the pancreatic juice. The appearance of the iodin or salicylic reaction in the saliva or urine indicates that the capsule has been dissolved. Positive findings after a certain interval reveal that the pancreas is probably functioning normally. Müller has simplified this test by transferring it from the living body to the test-tube. He uses a capsule hardened in an alcoholic solution of formalin, which dissolves readily in a fluid containing pancreas trypsin while resisting almost indefinitely the action of other organic fluids. The capsules used are filled with charcoal, and 10 or 15 c.c. (about a tablespoonful) of stool as thin as can be obtained is placed in a test-tube wide enough to allow the capsule to float in the fluid stool without touching the walls. The stool must not be filtered and the tube must not be heated above 98 F. If the stools contain the normal proportion of trypsin, the capsule will dissolve in about half an hour and the charcoal will stain the fluid, but if no trypsin is present the capsule will remain unaltered for a day or so before it finally dissolves. This method also permits quantitative estimation of the functioning by comparing the findings when the stool is diluted with 5, 10, 20, 50 and 100 times its bulk with a 10 per cent. aqueous solution of glycerin. Control tests with the serum plate dimpling method gave parallel findings in every case. The Gross method can also be applied as a functional test for the behavior of the pancreas. This is based on the fact that casein in an alkaline solution is readily precipitated by diluted acetic acid, while there is no precipitation if the casein has been subjected to the action of trypsin. The thin stool is mixed with three parts 1 per thousand soda solution and filtered. The test is made simultaneously with graduated amounts of the stool in a series of test-tubes containing each 10 c.c. of a solution of 0.5 gm. pure casein in a liter of 1 per thousand soda solution. For all the above tests the patient is prepared with an enema, fasting, then, after defecation, a test breakfast, followed by a little carmin or charcoal to limit the stools, and an hour or so later is given a purgative. A little chloroform is added also to the stool in the test-tubes to prevent bacterial action, and the stool used for the tests is the most fluid portion that can be obtained. He urges others to compare with the Cammidge reaction the findings with the serum plate and test-tube capsule methods as liable to prove exceptionally instructive, but does not mention any experience of his own in this line.

71. **Jerky Respiration as Sign of Pulsating Aneurism.**—Ortner reports a case which confirms the possibility of a disconnected respiration of a staccato type from the hammering of the trachea by an aneurism resting against it. His curves of the pulse and respiration reveal the mechanism and type of disturbance in question.

73. **Coincidence of Epigastric Hernia and Gastric Ulcer.**—Ury reports two cases and refers to four mentioned by Strauss and states that he has found three others in the records of Boas' policlinic. There seems to be an unmistakable connection between the traction and disturbance resulting from an epigastric hernia and the development of an ulcer in the stomach. He warns further that the symptoms may be referred to the evident hernia, when in reality they are due to an unsuspected gastric ulcer. On the other hand, it is possible that symptoms ascribed to an assumed gastric ulcer may in reality be the work of an insignificant and overlooked hernia. In one of his cases the patient was a workman of 56 with inguinal, umbilical and epigastric hernia, and, finally, symptoms of gastric ulcer. Ury has advised operative treatment of the epigastric hernia, at least, in this case, hoping thus to improve conditions for the gastric ulcer.

76. **Diuretic Action of Potassium Bitartrate.**—Burwinkel confirms from his own experience the commendation of potassium bitartrate, as a diuretic, from the pen of Eichhorst, summarized in these columns April 24, page 1369.

Münchener medizinische Wochenschrift

April 27. LVI, No. 17, pp. 841-896

84 Treatment of Fixation of Retroflexed, Pregnant Uterus. (Zur Therapie der Retroflexio uteri gravidi fixata.) M. Henkel.
85 Normal Starting Point for Action of Heart and Changes in it in Pathologic Conditions. (Ueber den normalen Ausgangspunkt der Herztätigkeit und seine Aenderung unter pathologischen Umständen.) H. E. Hering.
86 *Nature's Attempts to Heal in Case of a Brain Tumor. (Ueber Selbstheilungsvorgänge bei Gehirngeschwülsten.) Anton.
87 *General Syphilis without Primary Manifestations and Professional Syphilis in Medical Men. (Ueber Syphilis d'emblée und die Berufssyphilis der Aerzte.) L. Waelsch.
88 Flatfoot and Psoriatic Arthropathy. (Plattfuss und Arthropathia psoriatica.) A. Stoffel.
89 New Bandage for Supra-achromial Dislocation of the Clavicle. E. Hartung.
90 *Influence of Streptococcus Infection on Leucocyte Blood Picture in Monkeys. (Einfluss der Streptokokkeninfektion auf das leukozytäre Blutbild beim Affen, nebst Bemerkungen über die Untersuchungsmethode.) W. Zangemeister. Commenced in No. 16.
91 The Physician and the School. (Arzt und Schule.) E. Doernberger.

86. **Self-Healing Processes in Brain Tumors.**—Anton discusses the fact that tumors are liable to soften and become cheesy in the center, reduced in size and thus cause less pressure. He has also encountered cases in which hydatid cysts subsided and degenerated, and cases in which tumors became encapsulated with reduction in size. In some cases a spontaneous hemorrhage occurred in the tumor, checking its growth and followed by the absorption of the blood. The cerebral fluid may make its escape through the nose, or, as in one of his cases, through the orbit. He has witnessed excellent results from an artificial opening in the corpus callosum to permit communication between the ventricle and subdural space. This is an important aid in operating, to prevent hernia of the brain when the dura is incised. In four cases of this kind the severe symptoms subsided and the focal symptoms remained stationary. In a case described in detail, a large glioma in the cerebellum with hydrocephalus caused severe symptoms, but suddenly the headache became less, the respiration freer, the pulse more regular, and psychic improvement was also observed. The patient succumbed to pneumonia and autopsy revealed besides the glioma a blood-filled cyst on the other side. The hemorrhage had evidently caused the destruction and encapsulation of this tumor, the resorption afterward reducing the compression on the brain and thus improving the clinical picture.

87. **Professionally Acquired Syphilis in Physicians.**—Waelsch states that during the last ten years he has encountered in his practice at Prague six cases of professional syphilis in physicians, half of the total number of his cases of extragenital infection during that period. He remarks that it is a universal experience that the most remarkable cases, the rarest complications, and the most unexpected course of diseases are always encountered in physicians or their families. He mentions as a special example of this the chronic, non-gonorrheal urethritis which affects almost exclusively medical men and has a very bad prognosis, both as to its course and its permanent cure. In each of the professionally

acquired cases of syphilis it is evident that the infection might have been avoided with a little care. The primary lesion was on the fingers in all but one case, its cause not suspected until the lack of tendency to heal and the appearance of glandular involvement aroused the suspicion of syphilis. There were no serious manifestations in any case, and no tertiary phenomena. He warns that the hands should be manicured cautiously, not pushing down the skin at the base of the nail, to avoid minute lesions. On the slightest suspicion of a defect in the protecting skin, a rubber cot or glove should be worn, after covering the defect with collodion or fluid plaster. Every patient operated on should be examined for syphilis, whether the operation is gynecologic, obstetric or general, and on suspicion of syphilis gloves should always be worn. Syphilitics should be warned of the necessity of informing the surgeon before any operation in regard to their syphilitic history, both in their own interest and in that of the surgeon. The syphilitic should always inform his dentist of his infection before his teeth are treated. In case the physician injures his hand while operating on a syphilitic, he must burn out the lesion at once with the actual cautery, or if the injury was made with the syringe needle, leave the needle in place and connect it immediately with the negative pole for electrolysis of the tissues around. Simple washing with a corrosive sublimate solution is not effectual here.

90. Influence of Streptococcus Infection on Leucocyte Blood Picture.—The findings in Zangemeister's ten monkeys showed a characteristic curve of the mononuclear neutrophiles in the first twenty-four hours from which the further course of the infection could be foretold with absolute certainty. The polynuclears and the eosinophiles also showed a characteristic curve, but less pronounced. The mononuclears increased from 40 to 60 per cent. in the mild and from 45 to 67 per cent. in the moderate cases in the twenty-four hours, while in the fatal cases the mononuclears dropped abruptly from 45 to 42 per cent. If these findings in monkeys can be applied to man we have an easy method of determining the outlook in streptococcus infection in operative and obstetric cases. The leucocytosis ranged from 18,000 to 25,000 in the mild cases and from 17,000 to 13,000 in the moderate, while in the fatal cases the leucocytes dropped from 23,000 to 9,000 within six hours.

Wiener klinische Wochenschrift, Vienna

April 29, XXII, No. 17, pp. 589-624

92 *Temperature Relations between Heart and Lungs. (Temperaturbeziehungen zwischen Herz und Lunge.) S. Exner.
93 *Present Status of Tendon Transplantation. (Sehnentransplantation.) R. R. v. Aberle.
94 Scarlet Fever. (Scharlachfieber.) K. Preisich.
95 Hypophysis Tumor. (Zur Kasuistik der Hypophysengangsgeschwülste.) F. Formanek.
96 Unreliability of Stain Diagnosis of Syphilis. (Luesnachweis durch Farbenreaktion.) M. Biach.

92. Temperature Relations Between Lungs and Heart.—Exner calls attention to the admirable provision for keeping the heart cooled that is afforded by its being imbedded in lung tissue which is constantly being cooled by the air inhaled. The heart has been estimated to produce 70 calories on an average during the twenty-four hours—an enormous proportion in relation to its size of the average 2,800 calories produced by the entire organism. It is protected against the evil effects of overheating during exertion by the inhaled air: during exertion the breathing is apt to be through the mouth, which brings the air more directly to the heart. Animals after running pant with open mouth and lolling tongue. He suggests that this provision for keeping the heart cool might serve as a guide to treatment of pathologic conditions in the heart.

93. Tendon Transplantation.—Aberle presents arguments to sustain his view that transplantation of tendons is superfluous in the milder cases of flaccid paralysis and useless in the severer cases. In the mild cases the benefit derived and attributed to the tendon transplantation is in reality due to the supplemental fixation, massage and manipulations correcting and overcorrecting the deformity. These should be given a thorough trial first, before tendon transplantation is even considered.

Zentralblatt für Chirurgie, Leipsic

April 24, XXXVI, No. 17, pp. 593-624

97 Arthrodesis of Ankle. (Zur Technik der Arthrodese des oberen Sprunggelenkes.) A. Wittek.

May 1, No. 18, pp. 625-664

98 Resection of Elbow. (Osteoplastische Resektion des Ellbogengelenks.) W. Levy.
99 Forceps for Trephining and Laminectomy. (Ueber Trepanations- und Laminektomiezangen.) F. de Quervain.

Zentralblatt für Gynäkologie, Leipsic

April 24, XXXIII, No. 17, pp. 585-616

100 *Glycerin Sterilizer for Rubber Gloves and Silk Catheters. (Neuer Desinfektionsapparat für Gummihandschuhe und Seidenkatheter.) Heusner.
101 Obstetric Extraction by Both Arms. (Extraktionsschwierigkeiten.) R. Teuffel.
102 Treatment of Tubal Pregnancy. (Behandlung der Eileiterschwangerschaft.) T. H. van de Velde.

May 1, No. 18, pp. 617-648

103 *Coagulating Properties of Placenta Juice and Their Inhibition. (Bedeutung gerinnungshemmender Stoffe für die Wirkung des Placentarpresssaftes im Tierexperiment.) F. Engelmann and C. Stade.
104 Prophylaxis of Hemophilia. (Weibliche Helden.) L. Pincus.

100. Disinfection of Rubber Gloves and Silk Catheters.—Heusner has found that rubber gloves can be boiled in glycerin as long and as frequently as desired. He has the disinfector made with an outer and inner chamber between the walls of which is a wire netting. The gloves are placed in a closed wire netting box in the bottom of the disinfector to keep them covered with the glycerin. The double walls and wire netting act like a safety lamp, allowing the penetration of the heat without danger of overheating. Numerous tests showed that the gloves were always sterile after heating to 110 or 115 C. for thirty minutes in this apparatus over a gas stove or alcohol lamp. Not a trace of injury or change was seen in any of the gloves, silk catheters and instruments thus sterilized. The only objection is the expense of the glycerin, but the same glycerin can be used repeatedly.

103. Coagulating Action of Placenta Tissue and Eclampsia.—Engelmann and Stade state that of 19 rabbits injected with filtered placenta juice in the most diverse concentrations and quantities, 17 died, generally in a few minutes. The fatal action of the placenta juice was evidently the result of excessive coagulating power. In another series of 13 cases the simultaneous or immediately preceding injection of a substance that checks coagulation saved the animals after the injection of placenta juice. Thrombosis developed in every case in which the injection of the coagulation-inhibiting substance was omitted or an inadequate amount injected. It seems evident that the placenta juice contains some blood-coagulating substance, and that it is possible to check its action by injecting some coagulation-impeding substance. The research reported included experiments on 49 rabbits and 31 white mice. The results apparently throw some light on the etiology of eclampsia.

Gazzetta degli Ospedali e delle Cliniche, Milan

April 20, XXX, No. 47, pp. 497-504

105 Two Cases of Large Femoral Hernia. (Ernia crurale voluminosa.) L. Fioravanti.

April 25, No. 49, pp. 513-528

106 Ten Cases of Epidemic Cerebrospinal Meningitis. E. Crocco.
107 The Pain in Heart Disease. (Il dolore nelle cardiopatie.) A. Rossi.

April 27, No. 50, pp. 529-536

108 *Epidural Injections in Enuresis in Children. (Della puntura epidurale nell' enuresi essenziale dei bambini.) G. B. Allaria.

April 29, No. 51, pp. 537-544

109 Classification and Symptomatology of Syphilids on Female Genitalia. (Sifilide del sistema riproduttore nella donna.) G. Franceschini.

May 2, No. 52, pp. 545-560

110 Calcium in Treatment of Hemorrhage. (Il calcio nella cura delle emorragie.) L. Sabbatani.

108. Epidural Injections in Treatment of Enuresis.—Allaria has applied Cathelin's method of injection of salt solution in twenty-two cases of involuntary micturition at night in children, and obtained good results in about half the little patients. Examining these successful cases more closely he has become convinced that the effect was merely the result of suggestion, and that probably equally good results can be obtained by the usual measures supplemented by suggestion without the necessity for the epidural treatment. Children inclined to idiopathic enuresis are generally neuropathic and

frequently present physical signs suggesting degeneracy, and the tendency to enuresis generally improves under the influence of the stay in the hospital.

Policlinico, Rome

March 28, XXI, No 13, pp 389-420

111 Diagnostic Auscultation of the Mouth in Respiratory Affections (Contributo all'ascoltazione della bocca nelle malattie dell'apparato respiratorio) C Achille

April 4 No 14, pp 421-452

112 *Alleged Specific Changes in the Leucocytes in the Blood in Purulent Inflammations (Sulle pretese alterazioni specifiche dei leucociti del sangue in casi di infiammazioni purulente) M Pavesi

113 Three Puzzling Gallstone Cases (Calcolosi biliare.) V. Bartera

April 11, No 15, pp 453-484

114 *Acute Decubitus Following Spinal Anesthesia (Il decubito acuto consecutivo alla rachianestesia con la stovaina) G Bilancioni

April, Medical Section No 4 pp 145-192

115 *Pathogenesis of Cirrhosis of the Liver in Certain Cases (Patogenesi di certe cirrosi del fegato con speciale riguardo alle alterazioni epatiche nel morbo Pick) A. Baduel

116 Fluctuation of the Phenol in the Urine in Certain Affections of Digestive Apparatus and Connected Glands (Oscillazioni del fenolo nelle urine in alcune malattie dell'apparato digerente e glandole annesse) T. Cipparello

112 Alleged Specific Changes in the Leucocytes in Purulent Inflammation.—Pavesi gives the findings in 92 cases of purulent inflammation, in 32 with other lesions without suppuration, and in 10 healthy individuals He followed Cesaris Demel's directions but was unable to find these changes in the leucocytes so constantly as the latter and, on the other hand, he found them in some cases free from any suppurative focus.

114 Acute Decubitus After Stovain Spinal Anesthesia.—Bilancioni reports three cases in which men between 25 and 50, operated on under stovain spinal anesthesia, developed acute decubitus whose course, site and other characteristics left no doubt as to the connection with the toxic action of the stovain, the patients not being debilitated or bedridden He discusses the origin and nature of these lesions, comparing them to the paralysis from the toxic action of the drug

115. Pathogenesis of Certain Forms of Cirrhosis of the Liver.—Baduel ascribes the cirrhosis in certain cases to a primary chronic torpid peritonitis involving the liver by the lymphatic route The same explanation applies also to certain cases of pericarditis, both cirrhosis and pericarditis being of lymphatic origin from some primary source in the peritoneum The changes in the liver in these cases are too extensive to be referred to congestion alone, and his experimental research has confirmed the assumption of a lymphatic route for direct communication between the peritoneal sac and the interior of the liver A stain injected into the peritoneal cavity was found after eight or ten hours in spleen and liver, and in still larger amounts after twenty-four hours, while not a trace could be detected in the kidneys, lungs, heart or veins This etiology of the disturbances in the syndrome described by Pick as "pericarditic pseudocirrhosis of the liver" is confirmed by the findings in two cases reported and the absence of other probable causes. One patient was a girl of 14, the other a man of 40, the autopsy findings in each case are compared.

Riforma Medica, Naples

April 7 XXV, No 14, pp 365-392

117 Conditions at the Sulphur Mines of Avelli (Il lavoro nelle zolfare dell'Avellinese) L Ferrannini Commenced in No 12

April 12, No 15, pp 393-414

118 *Tumors of the Base of the Brain (I tumori della base dell'encefalo) G Rummo

119 *Polyneuritis from Chilling (Sulla patogenesi della polineurite a frigore) S Mancini

120 The Toe Dorsal Reflex in Young Children (Il riflesso di Mendel Bechterew nella I e II infanzia) A. Acquaderni

118 Tumors at the Base of the Brain.—Rummo concludes his long study of the anatomic and physiopathologic aspects of tumors of the base of the brain with a tabulation of the various syndromes caused by tumors in the anterior, posterior or median portions of the cranial fossa and in the three subdividing zones in these parts The article is accompanied by 61 illustrations the last one showing instructively the course of the various cranial nerves as they pass through this region and their liability to injury from tumors at various points A large number of personal cases with comparison of the clinical and autopsy findings are reported, some demonstrating anew how a tumor in the frontal lobe, by compression from above, may induce a "base" syndrome. The topography and nature of the tumor and the age of the patient are the criteria for treatment, and a course of antisyphilitic medication should be instituted even when there is nothing in the case to suggest syphilitic antecedents, unless the patient is to be operated on at once. A solitary tubercle, glioma or osteosarcoma develops much more slowly than a sarcoma or carcinoma the latter proving fatal generally in two years and in a few months in children. A cavernous angioma, however, may persist without fatality for a couple of decades and a tubercle may enter a stationary phase or even undergo retrogressive metamorphosis, ossification and calcification. Other things being equal, young individuals bear tumors at the base of the brain better than adults owing to the superior elasticity and yielding capacity of the bones and sutures of the skull Operative treatment may give great relief from palliative puncture of the ventricle or lumbar puncture or resection of compressing bone, but he regards tumors of the base of the brain as beyond the reach of the surgeon for radical surgical measures

119 Polyneuritis from Chilling.—Mancini reports three cases of acute polyneuritis for which no other cause could be discovered except exposure to cold and dampness. There was no fever in any of the cases and the patients recovered completely in from two to eight months The Lasègue sign was pronounced in each case, that is, flexion of the thigh on the hip was painless He discusses the literature on the subject and suggests that the chilling may induce the production of a cytotoxin specific for the peripheral nerve cells.

Hospitalstidende, Copenhagen

March 24 LII, No 12 pp 361-392

121 Mucus in the Stool and its Diagnostic Importance (Slim i Afføring dens Paavisning i alm Praxis og diagnostiske Betydning) C Thorsen

March 31 No 13, pp 393-416

122 *Graphic Record of the Phases of Respiration and their Proportionate Length (Om Registrering af Respirationsfasernes og Studier over disses indbyrdes Længdeforhold) C Sonne

123 *Influence of Emotions on Fluctuations of Leucocyte Count. (Psykiske Forhold som Aarsag til Svingninger i Leukocyttallet) V Ellermann and A Erlandsen

April 7 No 14 pp 417-440

124 *Sarcoma Treated with Coley's Fluid V Hertel

125 *Vernon's Method of Treating Hemorrhoids H von Thun

122 Registration of Phases of Respiration.—Sonne has devised an ingenious little mask apparatus in which a constant current of air is forced through a tube to a Marey recording drum but with a gap opposite the mouth so that the current of air has to jump this gap to enter the wider continuation of the tube that leads to the drum. The current of air does this regularly jumping the gap without effort and continuing on its way in the tube except when the current is interrupted by the breath passing in and out from the mouth These interruptions are recorded on the drum and thus graphically register the phases of respiration He tabulates the findings in 25 healthy persons examined reclining and standing, during physical exertion and at rest, and discusses the influence of the varying types of respiration on the blood pressure, etc

123 Influence of Emotions on Variations in Leucocyte Count.—Ellermann and Erlandsen examined the blood of fifteen persons, taking a fresh drop of blood every minute or so for four or five blood counts in each case. They found that the drop of blood obtained first always contained the largest number of leucocytes The difference between the number in the first and the following drops sometimes amounted to 35 6 per cent, ranging from 3.5 to this percentage, although the interval between the first and the fifth drops was less than ten minutes in every instance They ascribe the larger number in the first drop to the emotional shrinking from the incision, believing that the psychic condition is able to influence the number of leucocytes in the peripheral blood by the same mechanism as in other physiologic variations in the blood count.

124. **Sarcoma Treated with Coley's Toxins.**—Hertel reports several cases of sarcoma in which such benefit was derived from injections of Coley's fluid that he regards it as a duty henceforth to apply it in every such case, especially after removal of a sarcoma, to prevent or attenuate recurrence. He describes three cases in detail. One patient was a man of 29, with sarcoma in the testicle, which was removed, as also a metastatic recurrence a year later. He was then free from recurrence for two years, but then two metastatic tumors in the pelvis required removal but only a partial excision was possible. The operation was supplemented by injections of Coley's fluid and during the ten months since there has been no sign of recurrence. In another case there were signs of a tumor in the spinal canal and the rapid development of symptoms suggested malignant disease. Nothing was found to indicate a primary cancer elsewhere, and, on the assumption of a possible sarcoma, a course of injections of Coley's fluid was instituted. As no improvement was perceptible after about a month, the tumor was sought and removed by a laminectomy. The peculiar appearance of the tumor suggested a fibroma more than sarcoma, but the physicians who saw it concluded that it must be a sarcoma which had been modified by the action of the Coley's fluid. He cites this case as showing that an intradural sarcoma could be so influenced by the injections that it was practically cured, all growth was arrested, and the tumor was modified almost beyond recognition. The patient might possibly have been spared the laminectomy with a little more patience.

125. **Vernon's Method of Treating Hemorrhoids.**—von Thun gives an illustrated description of Vernon's technic, summarized in The Journal, Nov. 2, 1907, page 1560, and states that he has applied it with gratifying results in ten cases of hemorrhoids. Among its advantages are the cleanliness of the technic, the rectum being shut off from the field of operation, the linear scar, and the freedom from danger of injuring the sphincter of the anus and tendency to stricture later.

Hygiea, Stockholm

March, LXXI, No. 3, pp. 194-288

126 *Experiences with Serodiagnosis of Syphilis. (Några erfarenheter med Wassermanns serumreaktion vid syfilis.) I. Jundell, J. Almkvist and F. Sandman. Id. K. Marcus.
127 Ferments Causing Autodigestion. (Om autolys.) S. G. Hedin.
128 *Connection of Diabetes with Changes in the Pancreas. (Till frågan om diabetes mellitus och förändringar i pankreas.) C. Heijl.
129 *Diagnostic Importance of Lumbar Puncture. (Lumbalpunktionens diagnostiska betydelse, särskildt vid börjande paralysie générale.) J. Billström.

126. **Serodiagnosis of Syphilis.**—Among the 200 persons tested, 41 were certainly not syphilitic, and a positive response to the test was obtained in this group only in a few lepers. The findings on the whole confirm those reported by other writers. Marcus has examined nearly 500 persons with similar conclusions in regard to the valuable information to be derived from the test, although, he remarks, it is not specific for the syphilis virus but for the disease itself and possibly for an entire group of protozoon affections.

128. **Connection Between Alcoholism, Diabetes and Changes in the Pancreas.**—Heijl describes the autopsy findings, with three illustrations, in a case of moderate diabetes in a man somewhat addicted to alcohol. The pancreas was found much degenerated; scarcely any of the Langerhans islands were normal. He is inclined to accept the opinion that the alcohol injures the pancreas and thus induces the diabetes, although the symptoms of cirrhosis of the liver may predominate during life. He urges systematic research in every case of alcoholism in respect to the condition and functioning of the pancreas.

129. **Diagnostic Importance of Lumbar Puncture.**—Billström summarizes sixteen cases of general paralysis in which the cerebrospinal fluid was examined, the findings confirming the value of lumbar puncture in psychiatry. The globulin reaction is particularly instructive; it was positive in 100 per cent. of 34 cases of general paralysis, and the simplicity of the test commends it for general use, according to the technic of Nonne and Apelt for fractioned precipitation of albumin.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

The Influence of Heredity on Disease, with Special Reference to Tuberculosis, Cancer and Diseases of the Nervous System. A Discussion opened by Sir William S. Church, Bt., K.C.B., M.D., President of the Royal Society of Medicine, Sir William R. Gowers, M.D., F.R.S., Arthur Latham, M.D., and E. F. Bashford, M.D. [From the Proceedings of the Royal Society of Medicine, 1909, Vol. II.] Cloth. Pp. 142, with illustrations. Price, $1.50. New York: Longmans, Green, and Co., 1909.

The Stereo-Clinic. By Dr. Howard A. Kelly, Baltimore, Md. Vol. I., Gynecologic Examination, Hypertrophy, Conglutination, Pessaries, Fibroma. 41 Stereos. Cloth. Price, $10.25. Vol. II., Examination of Bladder and Catheterization of Ureters, Dilatation and Curettage. 45 Stereos. Cloth. Price, $11.25. Vol. III., Perineal Tear, Pelvic Abscess, Dermoid Cyst, Parasitic Myoma, Dysuria. 42 Stereos. Cloth. Price, $10.50. Troy, N. Y.: The Southworth Co.

Text-Book of Hygiene. By George H. Rohé, M.D., Late Professor of Therapeutics, Hygiene and Mental Diseases in the College of Physicians and Surgeons, Baltimore, and Albert Robin, M.D., Professor of Pathology, Bacteriology and Hygiene, Medical Department Temple University. Fourth Revised Edition. Cloth. Pp. 582, with illustrations. Price, $3. Philadelphia: F. A. Davis Co., 1908.

A Text-Book on Practical Obstetrics. By Egbert H. Grandin, A.B., M.D., Gynecologist to the Columbus Hospital. With the Collaboration of George W. Jarman, M.D., Gynecologist to the General Memorial Hospital and Simon Marx, M.D., Late Surgeon to the New York Maternity Hospital. Edition 4. Cloth. Pp. 538, with illustrations. Price, $4.50. Philadelphia: F. A. Davis Co., 1909.

Diseases of the Nose, Throat, and Ear and their Accessory Cavities. By Seth Scott Bishop, M.D., D.C.L., LL.D., Professor of Diseases of the Nose, Throat, and Ear in the Chicago Postgraduate Medical School and Hospital. Edition 4. Cloth. Pp. 564, with illustrations. Price, $4. Philadelphia: F. A. Davis Company, 1908.

Essentials of Laboratory Diagnosis. By Francis Ashley Faught, M.D., Director of the Laboratory of the Department of Clinical Medicine, Medico-Chirurgical College, Philadelphia, Pa. Cloth. Pp. 309, with illustrations. Price, $1.50. Philadelphia: F. A. Davis Co., 1909.

T.E.K.A.-Jarlibro, 1909. 1 Vol. Eldonita de la Tutmonda Esperanta Kuracista Asocio. Kun la portreto de l'honora prezidanto de la T.E.K.A., D-ro L. L. Zamenhof. Pp. 66. Paper. Price, 0.4 sm (20 cents). Kötzschenbroda-Dresden: H. F. A. Thalwitzer, 1909.

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A Text-Book of Practical Gynecology. By D. Tod Gilliam, M.D., Emeritus Professor of Gynecology in Starling-Ohio Medical College. Third Revised Edition. Cloth. Pp. 642, with illustrations. Price, $4.50. Philadelphia: F. A. Davis Co., 1908.

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Address

RELATION OF THE PHYSICIAN IN PRIVATE PRACTICE TO THE PUBLIC HEALTH *

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Before entering on details or discussing the more practical phase of my subject, it will be of interest, I trust, to consider briefly the relation of the public health movement to the general welfare and to the still broader theme of human progress.

SCOPE OF THE PUBLIC HEALTH MOVEMENT

Human welfare may be described under three heads: physical, mental and spiritual. These three elements are correlated, each bound closely with the others, and together they represent the scope of all human endeavor. Without minimizing in the least the other two, it seems to me that at the present time our principal needs relate to the physical.

Physical welfare is the foundation of race welfare in its broadest sense. It may be likened to the Constitution *in our legal system. The Constitution is the foundation* of our laws. There is not a state law, or a city ordinance, or police regulation, that does not rest on it or is not in conformity therewith, unless it be one that is voidable. Yet we think little about the Constitution, as we are enacting or enforcing our local ordinances, because we take the Constitution as a matter of course, or because it is so intimately connected with our political system that it requires no special thought.

Again, we look on the beautiful dome of the national *capitol at Washington, and the legislative chambers* beneath, and have scarcely a thought of the foundation on which it all so securely rests; yet it is there, and without it the dome and the chambers could not meet our vision. So physical welfare seems to me to be the necessary *foundation for the general welfare; and we should so* perfect it that we may lose sight of it and give our contemplation and efforts to higher welfare. In other words, physical welfare is only a means to welfare on a higher plane.

A sound mind in a sound body, *mens sana in corpore sano,* is an aphorism that has come down to us from antiquity, expressing both a truth and a goal to be attained; but in the light of modern thought it is insufficient as a guiding sentiment, since it contains no mention of the spiritual, and this latter is included in the modern thought of human progress.

Just what human progress is, just what it means, can not be defined. Writers of the day speak *frequently* of the uplift of the race, but there is no definition in this term; and yet, without understanding it, there is no doubt that we are all engaged in furthering human progress, in the uplift of humanity.

There is in astronomy what is known as the true stellar motion. By this is meant that, while the stars are revolving in their orbits, and the planets are also revolving on their axes, and some stars seem fixed, there is a general movement of them all, a progress through space; whither they are going and whence, we do not know, but we do know they are moving. So with human progress and the uplift; it exists. We do not understand it, and the best we can do is to catch its trend and keep ourselves in proper relation to it.

In this movement, the private physician endeavors to keep the individual in line—in his correct place as an individual in the ranks of humanity, as humanity is pressing forward to its destination. If the individual weakens, or meets with accident, the physician discovers the cause of the weakening and applies the remedy, or applies his surgical skill to repair the results of accident.

Analogous service is rendered by the lawyer, whose ideal function is to preserve justice in the ranks; and by the minister of the gospel or priest, who promotes morality and spirituality, these also being essential to human progress.

The physician, then, while ministering to the physical, is also contributing to the mental and spiritual, performing his part as others are performing theirs, absolutely necessary for the general welfare, yet only one of several units.

I fear that these somewhat abstruse thoughts may fail to interest, but I have endeavored to ascertain just where the physician stands in the realm of humanity—what is his relation to the world's work and progress. For with an understanding of our proper relations we are better able to perform our allotted part.

Now, in attempting to show the duties of the physician engaged in private practice in his relation to public health, I would not detract in the slightest degree from the importance and nobility of his ministrations to his individual patients. A qualified physician is a boon to any community. He is more: he is a necessity. Said a *distinguished professor of the medical college which I* was attending, during one of his lectures: "If I had a son who wished to study medicine, I would advise him against it, but, if he insisted, I would tell him to go ahead, not because of the honor there is in the profes*sion; not because of the money there is in the profes*sion; but simply because doctors must be."

* Address delivered at the graduation exercises of the Atlanta School of Medicine, Atlanta, Ga., April 26, 1909.

I was also once much impressed, during a conversation with the late Dr. Gilman, who was then President of the Johns Hopkins University, with his estimate of the character of the practicing physician in the many communities, large and small, which in the interest of education he had been obliged to visit. Although I do not quote him exactly, he said that he always found the representative physician of the community to be also the representative of its best intelligence in matters relating to education, general science, and the important questions of the day.

The physician must do, and generally does, more than to minister personally to the sick and injured. It is not incompatible with his calling to interest himself in other matters; in fact, to do so both broadens and helps him. The old idea that the practicing physician when not visiting his patients should be reading and informing himself from the books of his profession and should think of nothing else is not in conformity with the modern idea. It is well that he should interest himself in some science or subject akin to his own, or some other special study, which will divert his mind and make it fresher to meet the demands of his calling. Such diversion is really a mental rest. True, it should not be carried too far, but with proper limitation it is helpful and beneficial. Thus we see eminent physicians as authors on topics related or unrelated to their profession; as students of law and ordinances, as members of the legislature, as governors, and holders of other high civic offices.

It seems to me that one should resent the idea that a professional calling requires one to be indifferent to what is interesting his family and his neighbors, to the general interests of the community in which he lives, and particularly to his duties as a citizen. The physician, as well as all others, has his civic duties to perform, which should not be neglected.

A most natural sequence of a doctor's practice is an interest in sanitation and hygiene, sanitation having to do with the environment of man, and hygiene with his physical development. While the physician at the bedside is observing the fever or delirium or the racking pain of his patient, as he notes the anxiety and anguish of the family while the little one hovers between life and death, as he bends over the wasting form of the once strong man, and reflects on the financial distress and difficulties of ordinary existence facing those dependent on this man so stricken with disease, what more natural than that he should ask himself, could not this have been prevented? and that his mind should turn to thoughts of sanitation and hygiene? If the case is one of typhoid fever, he will naturally fear lest others of the family may become afflicted with the same communicable disease, due to the same cause; he will think of the dangers of contact and necessity of disinfecting all discharges, of the possible presence of a bacillus-carrier, and begin a mental study embracing the water and milk supplies, drainage and sewerage, soil pollution, and the need of screening against the typhoid-bearing fly, and the adoption of measures to prevent the breeding of flies.

If the case is one of malaria or yellow fever, for the protection of others, he will think of the mosquito and search for and destroy its breeding-places, whether they be stagnant pools or house rubbish such as old tin cans, which on their indented external surface may hold water so small in quantity as to escape ordinary observation, yet sufficient for the breeding of thousands of mosquitoes

If the case should be one of plague, he would search for insanitary conditions of house and stable favoring the breeding of rats and fleas which are the parasites of rats and which convey the plague from one rat to another and from rat to man. If the disease be uncinariasis, caused by the hookworm, which invades the intestinal tract either through the mouth or the skin of the lower extremities as the victim walks over infected grounds, and is discharged again in multiplied numbers with the alvine secretion, he will think of soil pollution, the chief cause of the prevalence of this disease, and the necessity of sanitary constructions to prevent it.

If the disease be tuberculosis, the great white plague, whose suppression is now engaging the activities of the whole civilized world, his mind will turn to the sanitation of the dwelling; to sufficiency of air space, sunlight and ventilation; to the prevention of flying germ-laden dust, and the disinfection or destruction of sputum.

TUBERCULOSIS AND PREVENTIVE MEDICINE

In view of the great public interest in this one disease, tuberculosis, and the relation which the private physician sustains to it through preventive medicine, it is pertinent to give it here a more than passing notice.

The awakening, both of the medical profession and of the general public, to the importance of this disease, to its fatality and undermining influence on human strength and prosperity, is one of the most notable features of the present century. Its curability and prevention have been demonstrated, and everywhere the popular mind is being aroused, and activities inaugurated and continued for its elimination.

An illustration of this fact may be observed here in Atlanta, where, in addition to other popular and municipal effort, there has recently been displayed a tuberculosis exhibition for the purpose of spreading knowledge and awakening an interest in the general antituberculosis campaign. This particular exhibit is one of a number which have been displayed in the last few months in Florida, Kansas, Nebraska, Missouri and Porto Rico, under the auspices of the National Association for the Study and Prevention of Tuberculosis. Like exhibitions have been held in Maryland, Texas, New York, Pennsylvania and in many other states.

Within the last three months 56 new associations have been organized for the prevention of tuberculosis, making a total of 273 such organizations with which the national association is in correspondence. Of thirty-nine state legislatures in session during the past winter, thirty had under consideration bills relating to tuberculosis, a majority of which gave promise of being enacted into laws.

In September and October last there was held in the city of Washington an International Tuberculosis Congress and exhibition which brought together the leading investigators and workers in this field from four continents. It was the most notable event of its kind in the history of the United States, a great world convention devoted to but one subject—one disease. The stimulating effect of this congress is felt to-day in crowded cities and isolated hamlets.

There has been increasing interest in the prevention and suppression of tuberculosis in this country since 1892, when there was organized in the city of Philadelphia, by Dr. Lawrence F. Flick, the Pennsylvania Society for the Prevention of Tuberculosis, the first or-

ganization of its kind in America. The movement has been actively carried on in a great many countries under philanthropic and governmental auspices.

Its importance from a hygienic and economic standpoint is demonstrable in many ways. Yellow fever, notwithstanding the many panics it has produced, has not caused in the United States, in the past 115 years, as many deaths as occurred last year from tuberculosis in this country. It is estimated that since the year 1793 there have been approximately 100,000 deaths from yellow fever; whereas tuberculosis is estimated to have caused 160,000 deaths last year alone. The mortality from tuberculosis is further emphasized when compared with the epidemic of bubonic plague in India, which has not, for the whole period since its first outbreak in 1896, caused as many deaths in that country in proportion to the population as were caused by tuberculosis in the United States in the same period. Statistics show that tuberculosis in the last four years caused more than three times as many deaths in this country as occurred in action, and from wounds received in action, during the entire period of the Civil War. The figures which sustain this statement are as follows: deaths from tuberculosis in the United States during the last four years, 640,000; deaths in action and from wounds received in action during the four years of the Civil War, 205,070 (federal, 110,070; confederate, 95,000).

I quote from an address delivered by Professor Victor C. Vaughan, of the University of Michigan, before the Tuberculosis Congress in Washington:

Please do not understand from what I have said that I am a pessimist, for such I surely am not, but we must see and appreciate our weakness if we are to relieve ourselves of it, and grow stronger. This crusade against tuberculosis is the greatest work that man has so far attempted. We of this generation are starting it and those who come after us will, we hope, complete it. I certainly believe that the time will come when tuberculosis will no longer curse our race. How soon this time will come it would be folly to predict, for that depends on the intelligence and earnestness of the effort that is put into the work. The eradication of this disease is by no means solely the medical man's problem; it demands the combined intelligence and labor of all men who are interested in the welfare of the race, and the individual who regards it with indifference should find no place in our legislative halls, either national or state. To take the life of a fellow man wilfully or maliciously is murder, the greatest of all crimes; to do so through ignorance or carelessness is manslaughter. In effect it is the same as murder, although in guilt it may be less heinous. The great majority of deaths from tuberculosis are due to manslaughter, and this fact should be recognized. The man who carelessly or ignorantly expectorates infected sputum, which, after drying, may be inhaled and may infect another, is guilty of manslaughter. The same is true of the dairyman who sells infected milk, or of the owner who lets an infected house. It is essential that we recognize these truths before we can be successful in our crusade against tuberculosis. The man who would put arsenic in milk or drinking-water would be regarded by the law as either a criminal or a lunatic, and in either case he would be so dealt with that he could not repeat the offense. The man who sells milk or other food infected with the tubercle bacillus or other disease-producing germs is distributing a more deadly poison than arsenic, and he should be forbidden the continuance of such a practice. We need wise laws in order to restrict and eradicate tuberculosis, and their adoption and enforcement are sure to come as soon as the mass of the people see the matter in the true light.

Our state governments should place tuberculosis on the list of diseases dangerous to the public health, require that all cases be reported, and the local health authorities should see that the disease is not disseminated. I do not think that any medical man holds that the homes of the tuberculous should be placarded or quarantined, but the tuberculous individual should be minutely and carefully instructed as to the care that he must take with his excretions in order that he may not transmit the disease to others.

The foregoing words of Dr. Vaughan are strikingly impressive.

TUBERCULOSIS AMONG GOVERNMENT EMPLOYÉS

The government of the United States has taken some action with regard to this matter as it relates to its own employés. In an executive order of Feb. 28, 1906, President Roosevelt declared that the non-observance of certain rules by departmental employés should, in the discretion of the head of the department, be considered a just cause for separation from the service. These rules are as follows:

1. All persons in government employ are positively forbidden to spit on the floors.
2. Such persons (employés with tuberculosis) will not be permitted to use the public spittoons, but must provide themselves with individual sputum receivers, preferably of easily destructible material, and carry these with them on arrival and departure. They will be held strictly responsible for the disposal and destruction of their own sputum, so that no other person's health may be endangered therefrom.
3. Such persons must provide their own drinking-glasses, soap and towels, and shall not use those provided for the general use.

TUBERCULOSIS AMONG IMMIGRANTS

Among the millions of immigrants who come to our shores, naturally there are many afflicted with tuberculosis. If allowed to enter the country and mingle with others in tenements and congested districts of our cities, these individuals would be a source of danger and would add many new foci for the spread of the disease. For this reason, all aliens suffering with the communicable forms of tuberculosis are refused permission to land. This applies to those having pulmonary, gastrointestinal or genitourinary tuberculosis. To guarantee against doing an injustice to any one, these cases must be diagnosed microscopically; that is, tubercle bacilli must be found in stained specimens made from the sputa or excretions of the alien. In cases presenting marked clinical signs, but in which the tubercle bacilli can not be found, the alien may still be debarred on the ground that he is suffering from a condition which may interfere with his earning a living and cause him to become a public charge. The medical examination of all immigrants is performed by officers of the Public Health and Marine-Hospital Service.

TUBERCULOSIS AMONG SEAMEN

With regard to seamen of the merchant marine, it is well known that the accommodations furnished sailors on merchant vessels are necessarily cramped and crowded, and in most instances poorly ventilated. When a member of a crew contracts pulmonary tuberculosis, he becomes a serious menace to others who occupy the same forecastle, unless unusual precautions are taken. Sailors are prone to ship on one vessel after another, remaining but a short time on any one. A consumptive sailor in this way may infect many forecastles and endanger the health of the sailors who occupy them.

To remedy this condition as much as possible, the medical officers of the Public Health and Marine-Hospital Service were instructed some years ago that whenever a consumptive sailor applied for treatment at a

marine hospital or dispensary the master or agent of the vessel in which the seaman last sailed should be notified, and whenever possible the forecastle or other apartment previously occupied by the seaman should be disinfected. This was done for the protection of other members of the crew.

Deep-water sailors, because of the nature of their lives, are prone not to form family ties. When these men contract a serious chronic disease, like pulmonary tuberculosis, they are apt to suffer in many cases for want of a home, and, in addition, are a greater danger to the community because of not having a fixed domicile. The government has obviated all this by taking on itself the medical care of its sailors and by establishing at Fort Stanton, New Mexico, a large sanatorium for consumptive seamen. At the present time there are nearly 300 consumptive sailors at this institution.

The sanatorium is located on a reservation covering thirty-eight square miles on a plateau in central New Mexico, at an altitude of 6,150 feet. Here many patients recover, and, of course, some die, as no distinction is made, in admission, as to the stage of the disease. The majority of the patients, however, improve to such an extent that the disease is arrested, and the seamen are able to take up some kind of work and become self-supporting, after, however, having been educated in the way they must live to remain well, and not to be a source of danger to others.

NEED OF INSTRUCTION OF THE TUBERCULOUS

A few years ago, desiring a brief rest without going too far from Washington, I went to the Great Falls of the Potomac—about twenty miles from Washington—and registered at the modest hotel on the Maryland side. Everything seemed to minister to my recreation—some fishing, but more particularly the scenery and interesting surroundings; the intake of the water supply of Washington; the rushing falls and huge boulders in the stream; the neighboring woods and the old canal with its locks and dams; the country store and the old-fashioned hostelry with its clean rooms and beds; the rough canal men and the country people—gave interest to my visit, which seemed to have no drawback to its pleasure, until, on the second day, I interviewed a man whom I had seen lounging around the premises, with the air of an invalid and a cough. I talked with him and found he had consumption, that he had come to this spot for recuperation, but that his home was not far away in one of the adjoining counties.

His country doctor had informed him of the nature of his disease, but on inquiring I found that no word of warning had been given him regarding the danger he might be to others; no advice or instructions relating to the disposition of his sputum, which, therefore—without thought or knowledge of the harm it might do—he had been disposing of recklessly everywhere. Here he was, poor man, unconsciously submitting others, myself included, to the danger of infection with the same disease.

Now, that man should have been instructed; some one should have told him, and should have told him promptly, not in a harsh way that would make him feel that he was necessarily a danger to his own people and to others, but in a sympathetic manner, at the same time explaining how easily the peril of spreading the disease could be avoided.

To this end, provision should be made for placing in the hands of every such person a small leaflet or even a card, explaining what the patient himself should do to prevent his conveying the disease to others—a disaster which he, himself, as well as those with whom he comes in contact, would naturally wish to avoid. Every doctor should have in his possession cards or leaflets of this character, whether they are provided by the state or municipal health authorities, by voluntary health organizations, or by the physician himself.

It is important that individual reseponsibility regarding this disease be emphasized. Every one should spread the knowledge of it, and persist until a public sentiment is established which will require of every one to contribute to the movement to wipe the disease out of existence. The simple but important rules should become a part of the common knowledge of the community, and their observance as much a habit as any other recognized rule or order of society.

The same feeling of respect and the same observance should prevail with regard to hygienic rules affecting this and other infectious diseases as now prevail regarding the well-known civic ordinances established for the protection of the community.

The same interest, the same patriotism, should be manifested as is shown by citizens in exercising the right of suffrage. The exercise of this right is simply an expression of a desire to take part in promoting the well-being of the community. How highly it is regarded is demonstrated, in both municipal and national elections, by the jealous care with which all our citizens, both of high and low degree, guard this, their sacred personal right. It is the essence of self-government, which in itself is the pride and glory of the present age and is illustrated nowhere and in no degree so vividly as by the great republic of the United States of America. This popular sentiment, this strenuous determination, to have an individual hand in the political welfare of the country, may well be extended, and naturally can be made to extend itself to the preservation of public health. Each individual must feel that it is his right to be protected from this aggressive disease—tuberculosis—and should be persistent in claiming this right.

SPHERE OF NATIONAL, STATE AND LOCAL PUBLIC HEALTH WORK

In the foregoing pages I have endeavored to show that the physician engaged in private practice must meet and know the principles and practice of sanitation and hygiene, the science of public health, and I now desire to show that his interest must be extended still further in this direction, and that he must of necessity acquire some knowledge of the laws and organizations in accordance with which the public health system is administered.

There are three divisions in the public health system of the United States, national, state and municipal, each having its own sphere, yet intimately related with the others. The states leave certain functions to the cities, exercising certain advisory and mandatory surveillance over them, and the nation bears an attitude similar in many respects toward the states.

In the matter of public health the question often arises how much shall be left to the states, how much shall be imposed on the general government? And here arises the old question as to police powers of the states and the restrictions imposed on the national government by the Constitution. There is evidently a growing sentiment that the national government should do far more than it is now doing toward the protec-

tion of the public health, and there is likewise a strong feeling that too much is expected of the national government, and that there is a tendency on the part of the state governments to allow, or to call on, the federal government for service which properly is imposed on the states themselves; and a willingness to surrender even states' rights for the sake of financial assistance. There is danger of an extreme view in each case, and it appears to me that as regards public health the limitations of the Constitution are the very limitations that the best policy would dictate. I do not admit that the limitations of the Constitution are as narrow as is claimed by some strict constructionists. Much may be done under the Constitution that at first blush seems impossible, but which under intelligent interpretation is possible.

On the other hand, measures evidently beyond the powers granted by the Constitution to the federal government would be unwise measures, weakening, as they would, the independence and self-reliance of states and municipalities, and cultivating a weak leaning on the national government, which would lead to a weakening of our national character.

As expressing one view of a proper division of public health work between the national and state governments, I quote from an editorial writer:

> The sanitary condition of cities and towns and the control of the influences which affect the health of the people are matters that come very distinctly within the police powers of the states. Regulations and restrictions for the protection of the public health can be best established and administered by state and local authorities, and the nearer their administration comes to the people affected the better. The subject may be neglected in some states, or they may be slow in appreciating its importance and providing for the sanitary well-being of their people, but that fact does not impair their authority or transfer it elsewhere. They may be dilatory or negligent in many things that the national government can not look after for them.
>
> When it comes to dealing with contagious diseases brought from other countries the matter takes a different aspect. The enforcement of measures for preventing their introduction at our seaports, or over our borders, necessarily involves interference with foreign commerce. Vessels have to be detained, inspected and disinfected and passengers and merchandise have to be subject to regulations that concern the people and the interests of the country regardless of state lines. National jurisdiction has here an appropriate field, and is alone adequate to its requirements. Quarantine regulations affecting communication with foreign countries should be national and national only. The same principles may apply in some degree to protection against the transmission of infectious diseases from one state to another through the agencies employed in interstate traffic, as interference with those agencies pertains to the regulation of commerce between the several states.

In addition to the functions of the national government as outlined in the foregoing quotation, the government is engaging in many important operations quite within its proper sphere. Among these may be mentioned the enforcement of the law and regulations regarding the manufacture of vaccine, toxins and antitoxins; the law relating to pure food; it is engaged in scientific investigations of the cause of disease and other matters relating to public health; it publishes vital statistics, and disseminates information regarding health conditions in this and other countries; it publishes scientific bulletins on health matters, and its Public Health Service is by law brought into cooperation with the health boards of the several states.

The state boards of health are yearly increasing in power and efficiency, and no scheme of sanitary organization in the United States could be successful which should not include the state health organizations.

GROWTH OF THE PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE

The Public Health Service of the United States, under the Treasury Department, was established by act of Congress, by enlargement and change of name of the Marine-Hospital Service in 1902. It may be of interest to sketch briefly the origin and growth of this service. Beginning with 1789, Congress established marine hospitals at various ports of the country to encourage the merchant marine, and physicians were appointed by the respective collectors of customs, in charge of these hospitals. In 1873 the service was reorganized, the physicians made into a corps appointed by the Secretary of the Treasury after examination, with a supervising surgeon-general in Washington, appointed by the President. In 1889 the corps was placed on a still better basis, requiring appointment by the President and confirmation by the Senate. The care of sick and disabled sailors in hospital led to supervision of their sanitary welfare aboard ship, and as sailors and their ships are the usual carriers of infection from foreign ports to our shores, when the first national quarantine law in 1878 was passed, the responsibility for its enforcement was naturally placed, in the same law, on the Marine-Hospital Service. Assisting the states in the exclusion of epidemic disease under the first quarantine law, the service was naturally called on to aid in the suppression of epidemic disease which escaped the barriers, and in the performance of this duty the marine-hospital officers became experienced in enforcing sanitary measures and in the principles of sanitation. In the meantime, a laboratory was established for the scientific investigation of the diseases treated in the hospitals, which was extended subsequently to all contagious and infectious diseases and matters relating to the public health, and from this first laboratory has been developed by succeeding laws the present Hygienic Laboratory of the Public Health and Marine-Hospital Service.

For years the Marine-Hospital Service was engaged, under various acts of Congress, in the performance of public health duties quite apart from its original function, until finally these duties became so great and numerous and the care of sailors in hospitals relatively so small a matter, that Congress in 1902 changed the name to the Public Health and Marine-Hospital Service, and enlarged its scope in public health work. Today it has a corps of nearly 450 medical officers, 50 pharmacists and a total personnel of about 1,740. It treats annually about 58,000 sick and disabled seamen in its 22 marine hospitals and 120 other relief stations. It conducts the maritime quarantine of the Philippine Islands, Hawaii, Porto Rico and the United States. It has its officers in the ports of China, Japan, India, Europe, Central and South America, and the West Indies, to sign the bills of health of vessels, examine immigrants, and give general sanitary information. It inspects all arriving aliens, to enforce the immigration health laws, maintains a sanatorium for consumptives in New Mexico, a well-established institution for the investigation of leprosy in Hawaii; maintains the Hygienic Laboratory at Washington, with a personnel of sixty workers, for the investigation of disease and matters relating to the public health; and a Public Health

Bureau at Washington, with six divisions, through which the operations of the service, properly classified, are conducted by trained medical officers under the direction of the Surgeon-General.

RESPONSIBILITY OF THE PRIVATE PHYSICIAN

In the public health system of the United States, combining the national, state and local forces, the physician in private practice is an important factor. Indeed, he is the first unit, in that on him devolves a duty of reporting the facts that naturally first come under his observation. He has a direct responsibility to the state, in giving the notifications and making the reports required. He is the first to see and know the conditions and diseases which, at first local, may become afterward state or national in their importance. He should loyally support his state and local board of health.

In conclusion, I would say to the members of the graduating class: Do not be dismayed by the obligations, additional to those of your practice, which have just been indicated. At the beginning of a professional career, I know that the field of study, investigation and labor, opened up to the practitioner through the usual curriculum of a medical college, seems so large, so difficult to cover, that one is apt to be apprehensive as to acquiring all the information necessary in the several branches of medicine, and keeping apace with developments, and state medicine may seem an additional responsibility. But you have the advantage of youth and strength. Many years are before you. Your capacity and knowledge will grow with the increasing years. You surely will be able to master these principles of hygiene and sanitation, to become familiar with the public health laws and regulations, and to aid in their enforcement, thus adding to the dignity of your profession and the value of your lives to the common wealth; and will worthily fill the important place allotted to you in the resistless march of human progress.

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CHRONIC CHOLECYSTITIS AS A CAUSE OF MYOCARDIAL INCOMPETENCE

REPORT OF THIRTEEN CASES

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It is said that one out of every ten adults has disease of the gall bladder and that one out of every thirteen has gallstones. If these figures are only approximately correct, there is certainly a remarkable discrepancy between the frequency of the occurrence and of the clinical recognition of chronic cholecystitis. This discrepancy is due partly to the ignorance of general practitioners concerning its frequency and partly to the obscurity of its symptoms. Yet when one's attention has been once directed to the subject, one is able to recognize certain symptoms which are very suggestive if not actually convincing.

Prominent among these is indigestion or stomach trouble, with or without more or less epigastric distress, distention or uneasiness coming on several hours after a meal and accompanied or relieved by eructations of gas. Not uncommonly these symptoms of indigestion occur at night, often waking the individual from sleep toward morning, and they are sometimes associated with palpitation or irregular action of the heart. It is not uncommon for this discomfort in the stomach to be relieved by the taking of soda, food or even a drink of plain water. As belching of gas is apt to follow the ingestion of these substances, the relief experienced is generally attributed to the removal of gas from the stomach. The gas is tasteless and odoriess as a rule.

Pain is not an essential symptom even when gallstones exist; and when the chronic cholecystitis is unattended with calculi there may be no history of pain whatever and even no tenderness except during and directly after an acute exacerbation of the gall-bladder infection. In some instances slight colicky pains are felt, and in two of my cases complaint was made of dull, intermittent pain below the heart. Attacks of "congestion of the liver" may be admitted, and at such times there is likely to be vague pain or tenderness in the region of the liver. In some cases also there is pain in the right shoulder, considered rheumatic, or in the back near the inferior angle of the right scapula, and Ewald's area of cutaneous hyperesthesia in the right back low down is generally discoverable.

There is, however, another point of interest in this matter of the symptomatology of gall-bladder disease; namely, the occurrence of disorders in the action of the heart, from arrhythmia and precordial oppression without dyspnea to demonstrable dilatation and incompetence dating usually from some attack of biliary colic or acute cholecystitis and thenceforth maintained by recurrences of the acute disturbance. This is shown by the case reports here narrated, the individuals having sought medical aid because of heart trouble, and, with but two exceptions, having no suspicion of anything being wrong with the gall bladder. Excepting in two cases in which outspoken attacks of hepatic colic were experienced, the symptoms referable to the heart overshadowed those pertaining to the gall bladder, and this viscus became an object of suspicion either on account of the complaint of "indigestion" or of facts in the anamnesis which directed attention to the gall bladder.

Without exception also in each of the cases reported, palpation detected a swelling in the proper location of the gall bladder which in most instances was shown by operation to be a Riedel's lobe. In nearly all cases, repeated and careful palpation was required before the swelling could be detected with certainty, and this was possible only after a more than usually pronounced attack of pain or indigestion. It was possible also at such times to perceive slight rigidity of the right rectus. The patient's color also was generally muddy or subicteric. There was not always a history of typhoid fever, while two patients gave a history of illness supposed to have been malaria, and some declared they never had been ill.

The cases to be reported number thirteen and have been divided into four groups in accordance with their clinical, not their pathologic, features. 1. In this group are five cases of pronounced cardiac incompetence showing considerable dilatation with arrhythmia and feebleness of heart's action with murmurs; in short, subjective and objective symptoms of serious heart disease. 2. This group comprises two cases in which there were attacks of pain that had been called angina pectoris or were of an anginoid character, and which attacks were followed by evidences of myocardial inadequacy. In

this group is included also one other case in which there was dull infracardiac pain, together with arrhythmia of the pulse and a moderate degree of dyspnea on exertion, both dependent on recognizable though not great dilatation of the heart. 3. In this group are embraced three cases of intermittence of the pulse of long standing and very intractable, but without dyspnea or other marked subjective symptoms of myocardial inadequacy. Two patients were much benefited by operation and thereafter enjoyed greater freedom from intermittence than by any previous lines of treatment. 4. This group includes two cases of valvular disease in which cardiac competence was destroyed either by outspoken attacks of hepatic colic or distressing symptoms thought referable to the stomach at first, but subsequently attributed to the gall bladder because of the recognition of a Riedel's lobe. A number of other cases could be reported, but are omitted because either not subjected to operation or not so plainly showing the signs of gall-bladder disease as to make its diagnosis certain.

CASE REPORTS

GROUP 1.

CASE 1.—*Patient.*—G. R., life insurance agent, aged 44, examined Nov. 12, 1903, on account of heart trouble, had suffered from a biliary colic two years before and been jaundiced for ten days. In March, 1903, he had experienced a second attack of colic and been jaundiced for three weeks but had not been operated on because of the state of his heart. All other illnesses were denied and habits had been good. The chief symptoms were dyspnea of effort and distress in the region of the liver.

Examination.—The only points of the physical examination worthy of note were the following: Icterus absent, temperature normal and urinalysis negative; accessible arteries not thickened, pulse intermittent and so arrhythmic that its rate was not recorded; the feeble apex beat in fifth interspace below left nipple and deep seated dulness increased transversely from one inch to right of sternum to four and a fourth inches to left of the midsternal line; no murmurs, but all sounds very feeble and the second succeeding the first by too short an interval; below the right costal margin a tender, palpable swelling that extended downward the width of two fingers, while elsewhere the liver could not be felt. The diagnosis was made of cardiac hypertrophy and dilatation with inadequacy, due to the cholecystitis and hepatic colic, not to chronic myocarditis. Accordingly an operation was advised in the belief that it would not prove especially dangerous, if properly performed, and would remove the source of irritation which was preventing the restoration of cardiac competence.

Later History.—The subsequent history is interesting. After a period of much suffering from both heart and gall bladder the man at length went to Rochester, Minn., in the hope of an operation, but this being denied on account of the state of the heart I saw him again at St. Luke's Hospital in a very serious state of myocardial inadequacy, somewhat icteric and his gall bladder swelling, very tender and large. An operation was again urged but declined because of the apprehension occasioned by the unfavorable opinion previously received. In February, 1905, a letter received from him stated that, although his heart still troubled him, he was able to attend to business; and quite recently this man, now 50, was married for a second time and was reported actively pursuing his vocation, although still troubled at times by both heart and gall stones. Consequently it is believed that had his gall bladder been opened and drained when this was first advised he would have endured the operation, his heart been reinstated and years of suffering prevented.

CASE 2.—*Patient.*—T. C. H., policeman, aged 43, examined in June, 1904, on account of heart disease, gave the history of illness of ten months duration. Syphilis was denied and whiskey used to excess only during present illness. Two years previously patient suffered from chills and fever which, occurring again ten months previous to examination, was called malaria. The perspiration was of bad odor and there was heaviness in the pit of the stomach. Ten days later palpitation and dyspnea set in and six months before the patient was seen his feet began to swell; he went to Mudlavia, where he took but fourteen baths. He was then obliged to return home and take to bed; he changed from doctor to doctor without relief. In April the abdomen was tapped and fluid withdrawn.

Examination.—Present symptoms were dyspnea on slight exertion, cough, and scanty muddy-looking sputum, anorexia and vomiting, poor sleep on account of shortness of breath. The skin was slightly jaundiced and pitted on pressure over lower extremities to knees, pulse 84, irregular and of low tension, radial arteries slightly thickened, tongue moist and red, temperature 99.9 F., leucocytes 12,600, urine slightly albuminous, lungs negative, but heart dilated, as shown by absence of impulse and increase transversely of both absolute and relative dulness, which latter reached from 1¼ inch to right of sternum to 1 inch outside of left nipple, all heart sounds very feeble and the first at apex impure. The liver was palpable and in the right parasternal line below the costal margin could be felt a swelling of the size of a small fist tender to palpation and the right rectus muscle was tense.

Diagnosis.—The history indicated that the symptoms of heart disease first appeared about ten days after the onset of an illness supposed to be malaria, but as malaria, in my opinion, does not cause disease of the heart and on account of the findings, namely, an enlarged and tender gall bladder, icterus, slight febrile temperature and moderate leucocytosis, the opinion was expressed that the dilatation and inadequacy of the heart had been initiated by an acute cholecystitis and was maintained by what was probably an empyema of the gall bladder. The heart muscle was thought to have suffered irreparable damage and yet without removal of the disturbing element by opening and drainage of the gall bladder, a restoration of even a part of its old-time power was impossible, although even after an operation a recovery of compensation was questionable. Accordingly operative interference was advised.

Operation.—The recommendation was accepted and his physician at home performed the operation. From him it was learned that the gall bladder was found enlarged, thickened, white and distended with mucus and dark bile but without stones. Local anesthesia was used.

Postoperative History.—The man stood the shock of the operation well and for seven days was progressing finely, when suddenly the flow of bile ceased, his temperature rose, the heart grew still more feeble and death occurred on the eighth day after the operation. No autopsy was permitted, but I believe that the findings at the time of the operation substantiated the diagnosis in so far as the relation between the heart and gall bladder was concerned, although an empyema did not exist.

CASE 3.—*Patient.*—C. S. H., real estate agent, aged 53, was first examined in November, 1904, because of heart trouble and shortness of breath for the past two weeks. Habits were excellent and venereal diseases denied; he had had malaria twenty-five years previously and in June, 1903, pneumonia, following which severe attacks of abdominal pain, coming on three to four hours after meals and compelling the patient to lie on his right side with knees drawn up, yet without nausea or vomiting. The last attack of pain had been in June, 1904, and had been diagnosed as acute appendicitis by his physician, who had kept him in bed and on a strict diet which had been maintained up to the present time and been responsible for his loss of weight. His complaint was dyspnea of effort and indigestion characterized by formation of great quantities of gas.

Examination.—Marked emaciation and pallor but no icterus; pulse irregular and intermittent, varying from 88 to 104 per minute; arteries soft and veins not turgid; systolic blood pressure (Gaertner), 95 mm.; no edema. Urine showed a trace of albumin and a few granular casts but no sugar or bile. Temperature 98 F. but leucocytes 12,200. Right lung showed reflex retraction at base behind but no râles. Heart dilated, the total transverse diameter being six inches, impulse very feeble and first sound at apex weak with a faint soft murmur, while

at base all tones were feeble, the second pulmonic being somewhat louder than the corresponding aortic. Examination of the liver revealed a swelling that extended from the costal margin in right parasternal line to the level of the umbilicus and was sensitive both to palpation and percussion. The stomach was somewhat dilated.

Diagnosis.—This disorder was plainly serious myocardial inadequacy with dilatation of both ventricles and muscular mitral insufficiency, but the question of moment concerned the state of the heart muscle and the possibility of its restoration to a fair degree of function power. The history of pneumonia eighteen months before and the man's age rendered likely the existence of a chronic myocarditis. But inasmuch as the gall bladder complication appeared responsible for the break-down of cardiac competence and seemed militating against recovery an operation was recommended in the hope that subsequent rest and treatment might restore some degree of compensation.

Operation.—Accordingly the gall bladder was opened a few days later and was found to contain stones besides exhibiting the usual changes of chronic infection. The heart stood the slight shock of the operation and ten days subsequently was reported by the attending physician to be showing a little improvement.

Postoperative History.—Unfortunately this improvement did not last and when the man was examined three months later the dilatation and myocardial inadequacy were still very serious. Nevertheless he persisted in his attempt to do business, with the result that he overstrained his weak heart, was removed to a hospital for treatment, but to no purpose, and death took place in March, 1906.

Case 4.—*Patient.*—H. C. S., manufacturer, aged 61, was seen in April, 1907, because of heart disease. Ten years previously he had had symptoms of glycosuria but not of diabetes and at length sugar had disappeared; seven years before the present illness an operation for perirectal abscess was followed by a perineal abscess that broke into the bladder; several years prior to the glycosuria some sort of trauma with internal injury. In November, 1906, he had a fall, succeeded two weeks later by numerous attacks of epigastric pain that eventually became constant, was accompanied by fever and kept patient in bed. In December, while sitting up in bed to take a drink, he was seized with a sudden sensation of something having burst in the abdomen and fell back in a state of shock from which he was aroused with difficulty. From this obscure illness convalescence was slow and never complete, so that when Mr. S. went south in February he had slight ankle edema and symptoms of cardiac incompetence; by end of March ascites, and a physician ordered rest in bed, cathartics and heart tonics; as soon as able to travel the patient returned home and I examined him.

Examination.—Symptoms were dyspnea on exertion, slight cyanosis, pulse regular and 96 to 105 at rest, systolic blood pressure 154 (Janeway), diastolic 80, radials moderately stiff, no fever, and appetite, digestion and bowel movements good, urine increased at night but without albumin. Physical examination, briefly stated, yielded the following: Heart dilated as shown by feeble apex tap 4½ inches to left and transverse increase of both superficial and deep cardiac dulness, the tones feeble and first at apex obscured by systolic murmur of maximum intensity over right ventricle; the second sound at apex doubled and aortic second tone intensified. Lungs were negative. The really interesting feature in this case was connected with the liver, which on superficial examination appeared enlarged from stasis. It was soon discovered, however, that the enlargement was strictly circumscribed and presented the shape of a swelling with convex upper surface and slightly uneven inner border that projected from the costal arch almost to the level of the umbilicus. This swelling was tender to palpation and by means of the tuning-fork could be differentiated from the body of the liver, which percussion showed of normal size and shape. Lastly, there was a right inguinal hernia.

Diagnosis.—Dilatation and incompetence of the heart, probably also some degree of chronic myocarditis, complicated by an intra-abdominal condition, thought to be a cholecystitis. It was stated also that the illness in the preceding fall with intermittent and afterward constant epigastric pain had been an acute exacerbation of an old gall bladder infection—that the sensation of something having burst in the abdomen and the resulting shock might have been due to rupture of the distended gall bladder, and that unless this complication were removed surgically restoration of cardiac competence was impossible.

Operation.—Accordingly a surgeon was called in who agreed in the diagnosis of chronic cholecystitis and concurred in the advisability of operative intervention. The consideration of the heart symptoms having developed during or directly subsequent to the acute illness in the fall gave hope that after removal of the abdominal complication myocardial adequacy might be regained. A week later the operation of opening and draining the gall bladder was done under ether. On incision of the abdominal parietes a clear, sticky serum gushed forth which coagulated speedily and the swelling collapsed. The gall bladder was then found, stitched to the abdominal wall, opened and drained. It was large, white, thick and filled with viscid almost black bile and no calculi.

Postoperative History.—A week later the pulse was of normal rate, the murmur gone and dilatation no longer demonstrable. Before long the man was going to his office but with the drain still in his gall bladder, and he had no further cardiac symptoms except for a short time when the flow of bile became checked. The pulse then became rapid but again fell to its wonted rate on re-establishment of the discharge of bile. In August he suffered a fall from a height of eight feet, which accident was followed by a return of the tumor and pain in the abdomen but without disturbance of the heart's action. Consultation with another surgeon resulted in a diagnosis of pancreatic cyst and a decision to operate. This was never completed, however, as death occurred on the table.

Autopsy.—This disclosed no cyst of the pancreas but a remarkable condition of the omentum. This was attached to the hernial sac and so twisted on itself as to have formed a pouch at its upper part. Into this pouch serum had transuded in consequence, probably, of constriction of the mesenteric vessels, and it was this localized ascites that created the swelling in the vicinity of the gall bladder.

Case 5.—*Patient.*—J. B., marine engineer, aged 47, was seen in May, 1907, because of dyspnea and other symptoms, due, as he had been told, to heart disease. The only points in the history worthy of note were typhoid fever in youth and, ten years before the present illness, a severe abdominal pain relieved by a purge.

Physical Examination.—The patient's height was 5 feet 7 inches, weight 177 but normal 202 pounds; conjunctivæ subicteric; no edema, or fever; urine negative; pulse 107 and regular, radials slightly thickened; systolic blood pressure 112 and diastolic 75 (Janeway). There was no perceptible cardiac impulse and deep-seated dulness was greatly increased to left, reaching six inches to left of the midsternal line; sounds were all weak but clear and no murmur was audible. The chest and abdomen were negative. Questioned particularly as to other symptoms than shortness of breath, the man mentioned occasional pains in the lower chest in front which, beginning on the right side, extended upward and across to the left. The diagnosis seemed clear of cardiac hypertrophy with dilatation in consequence of chronic myocarditis and the patient was ordered to bed in charge of a physician in proximity to the man's temporary abode.

Course of Disease.—Treatment for the next two weeks seemed to be improving the condition of the heart, when suddenly, in June, the patient experienced acute pain in the region of the gall bladder, temperature rose to 103 F. with great acceleration of the pulse, marked tenderness below the right costal arch and rigidity of the rectus. Acute cholecystitis was diagnosed and an operation performed, the surgeon finding an enlarged enormously thickened and white gall bladder distended with sticky, black bile and mucus. But the significant feature of this case is that after the opening and drainage of his gall bladder the area of cardiac dulness became appreciably reduced in size and the man lost all symptoms of myocardial

incompetence. When last heard from a few months ago the man was following his occupation as chief engineer on one of the boats on our Great Lakes.

GROUP 2

CASE 6.—*Patient.*—Mr. McA., contractor, aged 73, seen in consultation May 16, 1907, because of angina pectoris, heart and kidney disease, gave the following history: He had considered himself well until three weeks ago, when one morning while sitting at his office desk, he was seized with a severe pain in the epigastrium and lower part of the chest. The patient arose, went into his cashier's room adjoining and asked to have a physician summoned. This doctor considered the pain due to indigestion and prescribed accordingly, but the pain did not cease for four hours. Symptoms of cardiac incompetence developed the day following and the family physician quite naturally regarded the attack as having been one of angina pectoris, and finding the heart dilated ordered the patient to bed. The only other illness in the patient's recollection had been thirty years previously and consisted of abdominal distress with fever and diarrhea. The symptoms were shortness of breath, especially at night, troublesome eructations of gas, urine scanty, showing a few fine granular casts but no albumin, temperature normal.

Examination.—The patient was in bed, breathing somewhat hurriedly and superficially, looked pale and thin; no edema; pulse 76 to 80 and frequently intermittent; systolic blood pressure 140 (Janeway) and diastolic 78, radials slightly thickened, veins negative. The heart-apex beat was distinct but feeble in sixth space five inches to left of the midsternum and relative dulness increased to one inch outside nipple; the first sound at apex accompanied by blowing systolic murmur and at base both second tones accented. The lungs were negative. The abdomen was thin, and below the right costal margin could be felt what seemed to be the liver. Careful percussion, however, showed the liver to correspond with the inferior costal arch, while below this line was a smooth, rounded body which, slightly tender, glided easily beneath the fingers with each act of respiration and by means of the tuning-fork could be differentiated from the liver. May 19 the patient had another slighter attack of pain in the hepatic region, and at my visit on the 22d the conjunctivæ were subicteric, the temperature was about 100 F., pulse more frequent and more irregular, heart's dulness still more increased, the murmur more intense, the liver congested and the swelling at its lower edge more easily palpable and unmistakably tender.

Diagnosis.—This was now clear and the opinion unequivocally expressed that the underlying cause of the trouble was chronic cholecystitis which had led to an attack of hepatic colic and not angina pectoris and had precipitated the myocardial break down. Degenerative changes in heart, arteries and kidneys were present no doubt, and on this account the gall bladder complication was preventing and would prevent restoration of compensation unless the gall bladder were removed by operation. This being hazardous, surgical counsel was obtained from three men of wide experience. The first was noncommittal; the second dismissed the case as purely medical; while the third coincided in the diagnosis already given and the view that although attended with great risk an operation afforded the only chance of the heart being restored to even a fair degree of comptence.

Operation.—The friends decided to incur the risk and on May 25 the gall bladder was opened under gas. This anesthetic was borne badly, but at the end of eighteen minutes was withdrawn, as the operation was almost finished. Such was the rigidity of the abdominal wall, however, that a little more gas was ordered, whereupon respiration ceased promptly and death took place in spite of vigorous efforts to revive the patient. As in the other case, the gall bladder was large, thick, white and filled with black, viscid bile. No calculi were obtained. The only consolation possible under the circumstances was the corroboration of the accuracy of the diagnosis regarding the part played by the cholecystitis in destroying the competence of a heart muscle already diseased and only requiring a biliary colic to overpower its potential integrity.

CASE 7.—*Patient.*—Mrs. H., housewife, aged 64, was seen in consultation May 22, 1907, because of great irregularity of the pulse and other symptoms of heart disease. She had had typhoid fever in childhood; twenty-five years before, when pregnant, she had been trampled on in a crowd, and this was followed by bloody vomiting but not abortion; seven years before the present illness a severe epigastric pain lasting two or three days and slighter pains at intervals ever since; during the past winter an almost steady distress in region of stomach and for past three weeks shortness of breath on exertion. The present illness began with severe epigastric pain, which, radiating into the chest, was though to be angina pectoris, especially as the patient had signs of mitral stenosis.

Physical Examination.—The patient was in bed, with rapid, feeble but regular pulse, rectal temperature of 101 F., a moderately distended, tympanic abdomen with marked tenderness and appreciable rigidity directly below the right costal margin. The heart showed a tapping apex beat, increased dulness, both absolute and relative, a short presystolic thrill and murmur ending in a faint systolic whiff heard with the thumping first tone. The diagnosis was made of acute infection of the gall bladder with gallstones, the pain having been a hepatic colic, not angina, and this state of things having broken down the compensation of a mitral stenosis of moderate degree.

Operation.—As there was danger of acute peritonitis as well as of irreparable injury to the heart an immediate operation was advised. This was consented to with reluctance and hence delayed until the following morning. Beginning peritonitis was discovered and, in addition, a large, thick gall bladder which contained pus and a single black stone.

Death occurred thirty-six hours subsequently.

CASE 8.—*Patient.*—J. A., hotel keeper, aged 48, sought advice of me Dec. 1, 1908, because of dyspnea, irregularity of the pulse and a dull infracardiac pain present most of the time. The history, obtained with much difficulty, was in brief as follows: Typhoid at 14 years of age; fifteen years ago congestion of the liver; six years ago, after a bicycle ride, severe pain in epigastrium with vomiting, lasting six hours and called gastritis; since that time frequent bilious attacks; in May, 1908, pain in the left thigh with nausea and a few hours later, while walking, pain in the left leg with limping, and later, while sitting still, a slight stroke which speedily disappeared, leaving no ill effects behind; a week subsequently pain in region of liver and jaundiced; previous to his experience in May the patient was in the habit of taking an early morning plunge from the wharf into the ice-cold river without any ill effect on his heart; since May had not been well.

Physical Examination.—Patient subicteric but well nourished; pulse 116 in dorsal decubitus and so arrhythmic that the rate could be determined only by auscultation of the heart; systolic blood pressure 155 (Erlanger), accessible arteries slightly thickened; temperature and urine negative. Heart dilated, apex beat in fifth and sixth interspaces five inches from the median line and deep dulness much increased transversely, from 1¾ inches to right of midsternum to 5¾ to left; many extrasystoles and over the body of the heart a feeble blowing systolic murmur, the pulmonic second tone accentuated. Abdomen corpulent, but below the ribs in the right parasternal line a body feeling like the liver extended downward in a convex shape for about two inches and from the right mammillary to the median line, but not especially tender to palpation. The diagnosis was made of dilatation of the heart with incompetence, probably a chronic myocarditis, the incompetence having resulted from an attack of the hepatic colic in May, cholecystitis having caused also an intermittent claudication.

Course of Disease.—This man subsequently returned to Chicago and received treatment by means of rest in bed, cardiac tonics and Nauheim baths. The heart became reduced in size and the murmur disappeared, while the tones grew stronger, but the dull infracardiac pain persisted, and from time to time, especially when this pain was most peristent, the Riedel's lobe could be made out with great ease. In February the gall bladder was opened under ether and drained. It was much thickened, enlarged, white and filled with mucus, dark-colored bile and sand. When the man went home ten days later his pain had disappeared entirely and his heart's action was slightly

less irregular. He felt perfectly well. A recent report states that when the drainage-tube was removed after six weeks and the wound closed, great abdominal distention and distress, weakness of heart and asthma occurred, necessitating reopening of the wound, on which mucus and bile escaped with great relief to symptoms. What the ultimate effect on his heart will be can not be predicted, but it is feared that the heart muscle has suffered irreparable damage.

In this case, as well as in one other of which I have notes, the pain felt below the heart was spoken of as in the heart. In this connection mention may be made of the circumstance that in a certain instance when a surgeon was exploring the gall ducts for stone the patient exclaimed, "Oh, that gives me a pain in my heart!" I also recall a case seen in consultation with Dr. McCaskey of Fort Wayne, in which besides myocardial inadequacy there were attacks of pain that bore a close resemblance to angina pectoris, yet may have been hepatic colic, since there was a history, together with local findings, that seemed to implicate the gall bladder. It is these considerations that have led to the classification of some of the cases reported in Group 2; namely, that in which there is pain simulating angina pectoris.

Group 3

Case 9.—Mrs. B., aged 57, short and stout, consulted me in April, 1907, on account of a heart difficulty from which she had suffered for three years. She had a fever in the spring of 1904 on arriving in Italy from India, which illness was called malaria. Directly thereafter her heart began to trouble her and she was sent to Bad-Nauheim, where she took a course of baths under Dr. Schott. This course of treatments was repeated in the summer of 1905, and although improved thereby she still suffered from the same symptoms. No other facts of importance could be ascertained. Symptoms: persistent and annoying, irregularity of the heart, with a feeling of weakness and oppression in the region of the heart. This irregularity of the heart was especially bad when she was having indigestion, and at such times she had bad nights and was much exhausted. Naturally ambitious and energetic, she now could endure very little.

Examination.—The pulse was frequently intermittent, 80 standing and 70 in dorsal decubitus, systolic blood pressure 112 (Janeway). Percussion and palpation of the heart were impossible because of the mammary development, but the tones were feeble, especially the first, which in all areas was scarcely audible. The liver could not be palpated, but below the costal margin, right parasternal line, there was tenderness. The two points that attracted particular attention were the absence of dyspnea and the history of the cardiac symptoms having originated in or directly after an attack of supposed malaria. The want of dyspnea and the fall in pulse rate from the standing to the recumbent posture seemed to cast doubt on there being any serious degree of myocardial weakness, while the tenderness below the ribs and the belief that malaria does not cause heart disease directed attention to the possibility of the illness in 1904 having been an acute cholecystitis.

Course of Disease.—During the next six weeks Mrs. B. took a course of Nauheim baths and digitalis with slight improvement subjectively but no appreciable change in the pulse or heart sounds. At length in June she reported her heart as particularly bad because of an unusually bad night from indigestion. The pulse was more intermittent than had ever been noticed, but the point of special interest was connected with the gall bladder. Palpation of the liver had been made repeatedly but always with rather undecisive results. This day, on the contrary, it required but a moment to enable me to feel a smoothly rounded body projecting downward from the inferior costal margin about two inches, which was tender and glided easily down against the fingers with each act of quiet inspiration. The patient was now told that she had chronic cholecystitis, probably a sequel to an acute infection of the gall bladder three years before and that the irregularity of the heart was secondary to or greatly intensified by the chronic infection of the gall bladder. An operation was advised.

Operation.—On June 16 the viscus was opened and drained under ether. There was the usual finding of a large, thick, white gall bladder filled with tarry bile but, in addition, a quantity of sand and small stones.

Postoperative History.—Recovery was uninterrupted, but a little digitalis was ordered for a short time both during the days directly following and for a week or so in July. Not only did the patient improve in every other respect but the pulse soon became regular, and with occasional exceptions has remained so. During December, 1908, and until February, 1909, two months, the heart's action remained perfectly regular, but the patient then contracted an attack of grip, and at present writing, April 4, her pulse intermits but nothing like so frequently as it used to. Another noteworthy fact is that soon after the operation the heart tones became appreciably clearer and stronger and in particular the first sound previously almost inaudible became distinct. The patient herself is more than pleased with the result of the operation.

Case 10.—*Patient.*—W. M. M., dealer in live stock, aged 58, was seen on July 8, 1908, on account of attacks of palpation with eructations of gas which awoke him in the small hours of the night, and for which he had been treated without benefit for six months. He denied dyspnea and all other symptoms except flatulence and also declared he had never been ill before.

Physical Examination.—This showed a healthy-looking man of medium height and 158 pounds in weight. The pulse was of variable rate in consequence of frequent irregularity and intermissions, but when regular for a few seconds and running at the rate of 78. Systolic blood pressure was 148 and the brachial arteries felt rather stiff. Temperature and urine were negative. Heart: The indistinct apex beat was in fifth space below the nipple and relative dulness was increased to the left to 4¾ inches from the median line. The first tone at the apex was somewhat valvular and over the body of the heart was accompanied by a feeble systolic murmur heard with especial distinctness during each strong beat following a feeble systole. These extrasystoles were at times frequent. The abdomen was negative excepting that below the ribs on the right could be felt indistinctly a resisting body seeming very like Riedel's lobe. There was no tenderness.

Course of Disease.—Treatment by means of digitalis, strophanthus, etc., and various remedies to improve digestion, including correction of the diet, was absolutely without effect on the heart. At length in August, after an unusually troublesome time with his heart, palpation revealed the Riedel's lobe or gall bladder, whichever it was, so plainly that the opinion was expressed that a chronic cholecystitis was responsible for the indigestion and behavior of the heart, and an operation was advised. This was done under ether on August 28, and a thick, white, large gall bladder filled with molasses-like bile but no stones, was opened and drained. Convalescence was uninterrupted, but for a while strophanthus was administered as the state of the heart muscle was doubtful and it was desirable to reduce what slight dilatation was present. At length the heart, previously intractable to all treatment, became regular and for several months gave the man no trouble whatever. Recently, however, this patient has returned, complaining again of his annoying heart symptoms. This time flatulence was particularly pronounced and intestinal toxemia was thought to be the cause of the disturbed heart action. At the present writing treatment addressed to this condition is steadily improving the rhythm of the pulse.

Group 4

Case 11.—*Patient.*—Mr. A., bank cashier, aged 39, consulted me in October, 1908, because of irregularity of the heart's action, slight dyspnea on stairs and fatigue out of proportion to its cause. He thought these symptoms had existed since a certain occasion when he overstrained himself in swimming two years ago. In the winter of 1907 he had been threatened with typhoid fever and since then had been much troubled with gas on the stomach. Other illnesses were unimportant and habits were good.

Physical Examination.—A healthy-looking man; pulse 96 and very arrhythmic, systolic blood pressure 131 and diastolic

80, vessels negative. Temperature, skin, tongue and urine were negative. Heart: Apex beat indistinct in fifth space five inches to left of midsternum; deep dulness reached 5¾ inches to left and also slightly increased to right. The sounds were short and valvular and the first at apex was accompanied by a faint whiff most audible with the systole immediately succeeding an intermission. The abdomen was negative.

Course of Disease.—As the heart was dilated and serious incompetence seemed imminent, Mr. A. was advised to take a course of Nauheim baths, which he did with much benefit, his heart's area becoming reduced in size and the murmur disappearing with appreciable improvement in the strength of the tones. His indigestion was troublesome, however, and on one occasion he was given four quarter-grain tablets of calomel with soda to take that evening at half hour intervals. The next day he returned with a still more intermittent pulse, saying that half an hour following the first tablet and directly after the second he had been seized with cramps, vomiting and diarrhea which lasted well into the night and that slight colicky pains were still present. In the belief that these symptoms were not due to the calomel but to a possible gall-bladder trouble, careful palpation of the liver was made with the discovery of a small, tender swelling in the exact location of the gall bladder and extending about two inches below the costal arch. Two days later this swelling was less tender and less easily felt. By the end of the week all sensitiveness had subsided and the mass could be detected with difficulty. The precise degree of influence exerted on the heart by the cholecystitis, and whether or not it was responsible for the maintenance of the arrhythmia was a question hard to decide in view of the history of possible strain while swimming two years before. Nevertheless, an operation was recommended but was not performed owing to an adverse opinion given the patient in Rochester, Minn. This patient has since reported himself as pretty well, having but slight annoyance with his heart and no return of the gall bladder trouble.

CASE 12.—*This as well as the next one illustrates the disastrous effect of gall-bladder disease on a heart already damaged by a valvular lesion, but for the sake of brevity will be given only in outline.*

Patient.—In 1905 I was required to treat a man of 40 who had an unmistakable insufficiency of the aortic valve, probably of vascular origin. The complaint was more or less dyspnea and palpitation, but the man was always dwelling on his distress in his stomach. As the liver appeared greatly enlarged and sensitive to palpation the epigastric discomfort was thought due to hepatic congestion secondary to the cardiac disease.

Course of Disease.—At length, however, the man's gastric distress and inability to eat and digest food became so pronounced that I was led to examine the liver with particular care. To my surprise I at length was able to determine that the generally enlarged organ showed a contour and tenderness suggestive of a Riedel's lobe. On minute inquiry into the previous history it was ascertained that the man had suffered from symptoms highly suggestive of gallstone colic. A diagnosis of chronic cholecystitis was made and an operation advised, notwithstanding the serious state of the heart. The advice was heeded and an enormously enlarged and thickened gall bladder was opened and drained. It contained the usual tarry bile but no stones. The gastric symptoms were removed and the patient became able to eat, although the liver remained engorged and the heart inadequate. This latter condition better for a time, gradually grew worse and sudden death occurred some three months subsequent to the surgical procedure.

CASE 13.—*Patient.*—Mrs. F., Jewess, was in my care for about a year and a half suffering from dyspnea of effort due to mitral stenosis and occasional attacks of gallstone colic which latter she said she had for a number of years. During the fall of 1908 she was twice in a hospital.

Course of Disease.—During the first of these times the inadequacy for which she had been admitted was yielding satisfactorily to rest and the usual remedies when she was seized with one of her hepatic colics. Not only did the liver become greatly enlarged in the characteristic form of Riedel's lobe, but the heart dilated and became very rapid and arrhythmic, while the patient herself grew so hysterical and despondent as to be controlled with difficulty. As the gall bladder condition improved the associated cardiac and nervous symptoms gradually disappeared and the patient at length went to her home improved but still far from well. A few weeks subsequently she was again sent to a hospital where she went through a repetition of her former experience, but in an aggravated degree. The liver became much enlarged and underneath its lower margin could be felt a soft, exquisitely sensitive body believed to be the distended gall bladder. Her heart weakness became alarming. Tricuspid insufficiency developed, the legs became edematous, the woman was unable to take food, vomiting was frequent and her nervousness was almost uncontrollable.

A digitalis preparation was administered intravenously; morphin and codein and cathartics were prescribed freely without appreciable benefit. The condition became so grave that both the patient and her husband were told that without an operation, which under existing circumstances would be attended with considerable risk, a restoration of compensation was impossible. Thereupon the patient decided to go home and place herself under the care of a competent neighboring physician. This she did and I was informed subsequently by the attending physician that at length, with subsidence of the gall-bladder symptoms, the heart regained a fair degree of competence, so that the woman was able again to get about. His treatment had consisted essentially of that employed in the hospital, digitalis intravenously administered, etc. It is believed that the history in this case justifies the opinion that with permanent removal of the gall-bladder complication, the heart would have regained and retained its compensation, but without an operation will go to pieces again so soon as another gallstone colic is experienced.

The contemplation of the foregoing cases raises the queries as to what the explanation is of the effect of gall-bladder disease on the heart and why not all persons with chronic cholecystitis develop cardiac symptoms. I acknowledge frankly my inability to answer these questions, but with regard to the second I suggest that a previous state of the myocardium may be a determining factor. A healthy heart muscle may endure such a disturbing influence or may recover quickly from its derangement of function. A myocardium already the seat of structural disease, on the contrary, is seriously affected by conditions of strain or by illness which otherwise would prove harmless. Therefore, since chronic infection of the gall bladder manifests itself chiefly in persons at or past middle age, when presumably the heart muscle is no longer so able to resist attacks, there are furnished the conditions capable of producing the symptom-complex reported in these cases.

The explanation of the baneful effects on the heart of some cases of gall-bladder disease and not of others is hypothetical, and accordingly several theories may be advanced: (1) the circulation in the blood of bacteria or their toxins; (2) the depressing influence of bile constituents on the myocardium; (3) disturbance of the splanchnic circulation and secondarily of the systemic circulation and heart; (4) a reflex inhibition through irritation of the vagus. It is quite possible that a different explanation is applicable to different cases and, moreover, that there must be a predisposing cause residing in the heart muscle, that is, chronic myocarditis, in consequence of which the heart is unfavorably affected by influences which a healthy myocardium would be able to resist.

1. As regards the first explanation: The disastrous—even fatal—effects on the heart of acute cholecystitis, of which every practitioner of experience must have seen instances, is a direct result of the acute infection which is capable of setting up a parenchymatous myocarditis.

In the same manner, but, of course, very slowly, a chronic gall-bladder infection may induce a chronic myocarditis. This view seems borne out by the necropsy findings in a case which I have briefly mentioned elsewhere. A woman of 33, who had suffered for nine years with cholelithiasis, died as a result of an operation on her gall bladder. The autopsy disclosed pronounced coronary sclerosis and an extreme degree of brown atrophy of the heart. Careful search failed to reveal signs of syphilis or any source of infection than that for which the woman had been subjected to surgical interference.

2. The depressing effect of cholemia on the heart has long been known clinically and demonstrated experimentally. Its most common manifestation is in a bradycardia, but the investigations of Stewart and King, of which a summary has been graciously furnished me, prove a toxic action on the myocardium of the pigment biliverdin and a blood-raising power of the bile salts. Furthermore, the combination of biliverdin with an alkaline metal, sodium or calcium in gallstones, prevents its entrance into the circulation and, therefore, its toxic action on the heart. These facts explain the pernicious effects of chronic cholecystitis whenever there is mild but prolonged cholemia shown by slight icterus. Not only may there be chronic, though slight, toxic effect on the heart, but the increase of blood pressure caused by the bile salts may be a factor in gradually overcoming the functional integrity of an already degenerated heart muscle. Given on top of this an acute exacerbation of the chronic cholecystitis and we have all the factors necessary to acute myocardial incompetence.

3. The third hypothesis of irritation of the splanchnic is one which should not be ignored, but in the present state of our knowledge can only be hinted at vaguely. Nevertheless, since the splanchnics are the regulators of the circulation, it may be that disturbance of the intra-abdominal circulation may prove an added factor by unfavorably affecting an already weakened heart and to lead to its dilatation and incompetence.

4. Lastly, the disastrous effect on the heart of biliary colic is probably a reflex result of stimulation of the filaments of the pneumogastric distributed to the wall of the gall bladder. This is more likely, since the formation of gallstones tends to protect the heart from the toxic effect of biliverdin by preventing its absorption into the blood. It is likely also that reflex derangement of the heart is occasioned when soreness is present and not intense pain. It does not seem applicable, however, to cases in which the gall-bladder symptoms are indigestion and not colic, although it must be acknowledged that in many of these cases palpation of the liver reveals marked tenderness. In chronic cholecystitis, therefore, without colic or subjective distress, the harmful effect on the heart must be ascribed to the circulation in the blood of biliverdin and possibly of bacterial toxins, to which may be added the prolonged blood-raising influence of the bile salts. Then if to these be conjoined the disturbing effects of chronic indigestion, we have a variety of factors capable of setting up the cardiac disorders observed. That more or less structural damage to the myocardium ensues seems likely from the readiness with which arrhythmia returns on slight disturbing conditions as in Cases 9 and 10.

The question of operative interference in cases of the kind here reported is one that must be met and answered by the physician according to the exigencies of each case. That the cholecystitis should be recognized and drainage of the gall bladder instituted before cardiac symptoms arise is self-evident, and the cases are here reported in the hope that general practitioners may be impressed with the frequency of inconspicuous gall-bladder disease and probably may derive some aid in its recognition. Experience has convinced me that the opening and drainage of the gall bladder is attended with less danger, when properly performed, even though myocardial incompetence be present, than is non-interference. Did time permit, cases could be cited which would prove the peril to the patient and the culpability of the physician in leaving a chronically diseased gall bladder unoperated on when timely surgical intervention would have preserved the heart from irreparable damage and even spared life.

LITERATURE

A search of the literature, so far as that has been possible, with a view to discovering cases of the kind here reported, has not been very fruitful of results. Scattered references to the effects on the heart of acute and chronic cholecystitis and to the behavior of the heart during an attack of biliary colic exist in works devoted to the practice of medicine, but, with exception of a paper by Riesman and of certain cases therein cited, no report of the kind here made has been found. For example, Osler,[1] in describing the symptoms of biliary colic, says: "Palpitation and distress about the heart may be present, and occasionally a mitral murmur develops during the paroxysm, but the cardiac conditions described by some writers as coming on acutely in biliary colic are possibly pre-existent in these patients." Krehl,[2] also in an article on myocardial diseases, says what may be translated as follows:

> Disorders of the liver, especially gallstones, and also diseases of the genital organs, occasion at times motor or sensory disturbances on the part of the heart; palpitation, slowing or acceleration of its rate, precordial pressure, pain or anxiety, at times indeed stenocardiac attacks. Often these symptoms are united with heavy and difficult breathing.

And Sticker,[3] in his chapter on asthma, narrates a case of a woman whom he was called to treat for an asthmatic seizure that came on during an attack of gallstone colic and in whom the right heart was much dilated, both the asthma and dilatation disappearing after cessation of the pain. Doubtless similar passages might be found in other works.

In 1907 David Riesman[4] published a report of two cases seen by him which displayed a systolic murmur at the apex and increased cardiac dulness during or directly following a gallstone colic. He also cites the following cases gathered from the literature: Gangolphe,[5] 9 cases, 4 of cholelithiasis, 2 of emotional jaundice, 2 of hepatic cancer and 1 of cholangitis, in which cardiac murmurs occurred; Fabre,[6] 8 cases of jaundice, the heart affected in 5; Rendu,[7] in 1883, a case of hepatic colic in which systolic murmur developed, another case of colic and icterus in which there was marked arrhyth-

1. Practice of Medicine, Ed. 4, 1901, p. 564.
2. Von Marings: Lehrbuch der Inneren Medicin. Ed. 5, 1908, p. 371.
3. Nothnagel's Specielle Pathologie und Therapie, xiv, part 2, sub-division 2, p. 17.
4. The Development of Cardiac Murmurs During Attacks of Biliary Colic, THE JOURNAL A. M. A., May 11, 1907, xlviii, p. 1589.
5. Du bruit de souffle mitral dans l'ictere, Thèse de Paris, 1875.
6. Gaz. d. Hôp, 1877, p. 916.
7. De l'influence des maladies du cœur sur les maladies du foie et reciproquement, Paris, 1883.

mia, and another of catarrhal jaundice with gallop rhythm but no arrhythmia. Rendu also cites a case of Potain, which showed all the signs of tricuspid insufficiency without the recognized causes of that condition. According to Riesman, Tessier[8] classifies the cardiac disturbances due to gastrohepatic diseases as (1) intensification of the second sound, (2) doubling of the second sound, (3) a tricuspid murmur, and (4) complete tricuspid incompetence with venous pulse. Other writers who have dealt with the development of cardiac murmurs in cases of jaundice are Revillout[10] and Guéneau de Mussy, who, according to Revillout, was the first author to mention their occurrence. Quincke,[11] likewise mentioned by Riesman, recognizes a systolic murmur and intensification of the pulmonic second tone in icterus, but thinks them no more frequent than in other states attended with anemia.

In addition to the foregoing, I have discovered reports of cases of inflammatory lesions of the heart due to gall-bladder disease. Thus, Leva,[12] from Eichhorst's clinic at Zürich, reported two cases of ulcerative endocarditis resulting from disease of the gall bladder. The first was that of a 50-year-old multipara, who, after having suffered from icterus and gallstones, suddenly developed signs of endocarditis, from which she died in a short time. The autopsy showed gallstones in the common duct, expansion of the biliary passages and fresh thrombotic endocarditis of the tricuspid valve. The second case, in 1889, was that of a 44-year-old woman who was brought moribund to the hospital and died three days later. At the necropsy were discovered a fresh endocarditis developed on an old mitral disease, gallstones with dilation of the bile passages, abscess of the pancreas and meningitis. Leva cannot prove a definite connection between the disease of the gall bladder and the endocarditis, but any other etiologic factor for the valvulitis is wanting, and hence he concludes that in the first case the organism must have wandered from the gall bladder into the blood without leaving any changes behind, while in the second the pancreatic abscess and meningitis were undoubtedly secondary to the gall-bladder disease.

Leva failed to find similar cases in the German literature, but in the French found the following: Martineau[13] in 1866, Netter and Martha[14] in 1886—a case of multiple abscesses with gall gravel scattered along the intrahepatic bile ducts of the right lobe of the liver and an ulcerative endocarditis of the mitral valve. They believed that the two conditions were of common origin, since they identified the same organism in both situations and in the duodenum. These authors also cite reports by M. Luys (1864), Murchinson (1868), Jaccoud (1872), Roudot (1883) and Malibran (1884), but think the etiologic connection was not proven.

In 1893 C. Oddo[15] of Marseilles reported a case of a 40-year-old man who, having had gallstone colic for several years, suddenly developed a typical attack of biliary colic and jaundice; two days later a feeble arrhythmic pulse with signs of pericarditis from which he died a few days later. Oddo did not find similar cases in literature.

L. Bard[16] reported two cases of catarrhal icterus with bradycardia. In the first the pulse rate varied in the recumbent position between 48 and 52, but in the upright posture 84 to 88. In the recumbent position two jugular pulsations were seen to each cardiac systole and there was a doubling of the second sound, the third element being feeble and distant. In the second patient, the pulse in the dorsal decubitus was from 48 to 52, but in the erect posture 96. The heart sounds were the same as in the former case, but in the jugulars four pulsations were observed to each systole of the ventricles. The condition of the heart continued for several days after disappearance of the icterus.

Finally, the literature contains numerous references to the effect on the heart of the injection of bile into circulation, but, as these experiments are foreign to the class of cases here reported, they are omitted.

92 State Street.

8. Gaz. d. Hôp. 1878, p. 667.
10. Gaz. d. Hôp. 1878, p. 666.
11. Diseases of Liver, Nothnagel's Practice, English transl., p. 438.
12. Deutsch. med. Wchnschr. 1892, xvii, 228.
13. Arch. gen. de méd. 1866.
14. Arch. de physiol. norm. et path. 1886, xiii, 7.
15. Péricardite complication de colique hépatique, Rev. de méd., 1893, xiii, 829.
16. Semaine méd., 1902, xxiii, 15.

MANAGEMENT OF HEMORRHAGE FROM THE PARTURIENT CANAL*

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The successful management of hemorrhages of the parturient canal requires an intimate knowledge of their causes, unerring judgment, and immediate action for their prevention or control. It is important, therefore, to have in mind a well-developed plan of aggressive action in these emergencies; for on promptness and directness depend the safety of the mother and child.

These hemorrhages may occur before, during, or after labor. Those occurring before and during labor are either accidental or unavoidable. The accidental are due to the partial separation of the placenta from its normal situation in the upper segment of the uterus on account of some pathologic state of the uteroplacental union or traumatism. The hemorrhage may be concealed, visible, or both. The concealed may be dependent on bleeding between the uterine wall and the placenta, the margin of the latter remaining attached; to extravasation of the blood between the membranes and the wall of the uterus; to rupture into the amniotic sac; to stenosis of the cervix or its occlusion by the presenting part.

The unavoidable variety is due to the separation of a vicious implantation of the placenta in the lower segment of the uterus. It is designated lateral, marginal, or central prævia, according to its relative position to the cervix.

Hemorrhage occurring after the delivery of the fetus may originate in any part of the parturient canal; but postpartum hemorrhage proper is only from the placental site. It is primary when it occurs within twenty-four hours after birth of the child; it is secondary when it takes place at any time during the puerperium subsequent to the first twenty-four hours. While the true form is from the placental site, yet there are other cases in which the bleeding may originate from the cervix, vagina, or pelvic floor. Finally, one or more of these types may be combined.

FREQUENCY

Premature separation of the normally implanted placenta is not of common occurrence, and, in fact, its

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very existence, though affirmed by some of the earlier obstetricians, was denied by others. Altogether, not over 400 cases of this type have been reported in the literature of the subject. These figures, however, do not give an approximate idea of its frequency, as, no doubt, many cases are not recognized, and others are credited to the prævial variety. According to Holmes, it occurs about half as frequently as placenta prævia, or once in 500 labors.

Placenta prævia occurs, according to different writers, from once in 300 to once in 1,000 pregnancies. In 5,000 births at Columbia Hospital, there were sixteen cases of prævia, or one in 312.5 births.

Postpartum hemorrhage occurs in about 5 per cent. of all cases, and terminates fatally about once in 5,000 cases.

ETIOLOGY

The etiology of accidental and unavoidable hemorrhage is not definitely understood. The causes to which these abnormalities have been attributed are so numerous as to justify the inference that the real cause is unknown. As more than 70 per cent. of the cases occur in women who have borne children and the liability increases with each succeeding birth, multiparity and endometritis may be regarded as predisposing factors. The frequent association of nephritis with accidental hemorrhage is also of some significance. A short cord and traumatism may be direct factors in the production of hemorrhage from a normal placental site, while uterine myomata, malformation of the uterus and low implantation of the Fallopian tubes will help to explain some of the cases of prævia. Hofmeier explains the origin of the latter as the result of the fusion of the inferior pole of the reflexa with the decidua vera, while Strassman attributes it to defective vascularization of the decidua due to atrophic or inflammatory changes, making it necessary for the placenta to spread over a greater area in order to obtain its requisite supply of nutriment. The unusual size of the placenta in these cases, when we consider the development of the normal placenta as described by Peters, lends support to the latter theory.

While the pathologic factors of postpartum hemorrhage are not clearly understood, we know that anything that lowers the vitality of the system predisposes to atony of the uterus, and this would undoubtedly retard the contraction and retraction of its muscular fibers and thus favor hemorrhage.

Therefore, hemorrhagic diathesis, anemia, leucocythemia, nephritis and endometritis are regarded as predisposing causes. Cardiac, pulmonary or hepatic disease, producing obstruction or sluggishness of the maternal circulation, increases the liability to hemorrhage. Multiparity, precipitate labor, hydramnios and twin pregnancy, also favor postpartum hemorrhage. By far the most frequent cause of hemorrhage after birth is improper management of the expulsive and placental stages of labor. Hasty delivery, either by forceps, breech extraction, or version, may leave the organ unprepared for normal action. On the other hand, precipitate labor or protracted labor, by inducing inertia, may be attended by a similar result. The prolonged use of anesthetics, premature expulsion of the placenta, or a distended bladder, are likewise factors. Secondary hemorrhage is most frequently due to adherent placental tissue or the retention of blood clots.

TREATMENT

Unfortunately, owing to the paucity of our knowledge of the etiology of accidental and unavoidable hemorrhages, we are practically helpless to prevent them. Not so, however, with postpartum hemorrhage; for with proper management during pregnancy and labor, we can usually prevent it; and when it does occur, by the prompt use of measures at our command, we can, with almost absolute certainty, control it.

The management of hemorrhage from the normal placental site will depend on the amount of blood lost. When it is slight, rest in bed and the administration of sedatives, as in threatened abortion, may suffice. If the bleeding continues and the signs of collapse are pressing, the uterus should be emptied slowly or speedily, as the case demands. The cervix, according to the exigency, should be dilated either manually or with rubber bags, severed by multiple incisions, or vaginal Cesarean section performed, and the infant extracted with forceps or by version. After delivery, the uterus should be vigorously massaged to promote its contraction. If the placenta is not promptly expelled, it should be removed manually, the uterine cavity irrigated and packed with gauze to guard against postpartum hemorrhage. At the same time ergot should be given hypodermically further to insure uterine contraction. The vaginal tampon, which is so effectual in the treatment of prævia, has no place in the management of accidental hemorrhage, because of the danger of concealed hemorrhage. I have had two cases of accidental hemorrhage; both mothers recovered, but the infants perished before delivery.

In marginal and lateral prævia, rupture of the membranes permits the presenting part to descend and control the bleeding by compressing the placenta, and the labor, as a rule, terminates naturally. In this connection, however, the possibility of concealed hemorrhage must be borne in mind. Some years ago I had under my care a case of marginal prævia in a young multipara who had given birth to a number of children in rapid succession. The membranes ruptured spontaneously early in labor and there was a slight bleeding. Pains were tardy and feeble. Several hours after the onset of labor, signs of impending collapse were observed, and concealed hemorrhage was suspected. Examination showed the cervix dilated about two inches, but soft and yielding. Forceps were applied *in utero* and a living child delivered. Immediately following the extraction, more than a quart of dark clots were expressed from the uterus, which continued to relax, necessitating artificial expression of the placenta. Profuse hemorrhage followed, which was controlled by intrauterine irrigation and ergot hypodermically.

The tampon is a very valuable adjuvant in the treatment of prævia, in that it controls the hemorrhage, promotes softening and dilatation of the cervix, and at the same time enables the attendant to deliberately prepare, if need be, for immediate extraction.

Bipolar version, perforation, or separation of the placenta by the finger from its uterine attachment and afterward bringing down a foot, are the usual methods employed in central prævia. Bipolar version has reduced the maternal mortality of prævia, but as the child is used as a plug to control the hemorrhage its life is usually sacrificed. It was quite natural, then, that other measures would be evolved with the hope of reducing the high infant mortality while not decreasing the chances of the mother. Hence, abdominal Cesarean

section for placenta prævia has been advocated and performed from time to time for nearly twenty years. In my judgment, it has a limited but clearly defined field. It is particularly applicable in complete prævia in primiparæ with undilated cervix, and the results compare favorably with other methods of intervention. In 1905 I reviewed the literature of the subject and collected reports of 24 patients operated on by twenty-one operators. Seventeen of the cases were of the complete implantation, 2 lateral, and in 5 the variety was not mentioned. Fourteen patients were operated on according to the Sänger method, 7 by the Porro, and in 3 cases the methods were not stated. The majority of the patients were in unfavorable condition from repeated hemorrhages and were operated on after other methods had failed. Of the mothers who died, 3 succumbed to shock within twenty-four hours, 1 on the fourth day after secondary operation for obstruction of the bowels, and the fifth of septic peritonitis fifty-six hours after operation. Nineteen mothers and 11 infants recovered, a mortality of 20.8 per cent. and 54.3 per cent., respectively. Eight of the infants were either removed before viability or were dead before extraction, and 5 died from various causes in from several hours to four days after delivery. It is reasonable to suppose that the 5 who died after birth would have experienced the same fate after delivery *per vias naturales*, or might have perished after delivery, though certainly their chances of life were increased by the operation. These statistics are yet too small to formulate any fixed rule for guidance regarding the absolute and relative indications of Cesarean section for placenta prævia; these can be determined only by future experience.

Miller[1] has treated 14 cases of the central variety by preliminary ligation of the uterine arteries. His technic is to ligate the uterine artery on each side through the vagina, and then, having controlled the hemorrhage, he proceeds slowly to deliver. Two of his patients were so profoundly anemic, when first seen, that they died a few hours later, but the other 12 made good recoveries. In only 4 of the 14 cases was there any evidence of fetal life; in 3 of these the children were born alive, but all died prematurely within forty-eight hours. Miller asserts that the operation is simple, performed in some cases without anesthesia, does not decrease the possibility of future child-bearing, controls hemorrhage, allows the operator to proceed slowly and carefully to dilate the cervix and empty the uterus. He also states that the ligation prevents postpartum hemorrhage. He states that, while the fetal mortality may be slightly increased, there should be no maternal mortality except from infection. The method is ingenious and is an effective one in the treatment of placenta prævia, but, as in the older methods, the rights of the child are ignored. I have treated 7 cases of placenta prævia, 2 occurring in the same patient. One of the mothers died. Three of these cases were of the central variety, in which all of the infants were dead before the cases came under observation.

Many of the predisposing causes of postpartum hemorrhage can be overcome, and others at least mitigated, if treated during pregnancy. Some, however, can not be removed, and these may give much concern during the second and third stages of labor. The anemias, toxemias and leucocythemia are particularly prone to cause obstinate postpartum hemorrhage.

1. Miller, Harold A.: *Am. Jour. Obst.*, 1908, lviii, 1047.

Whether to delay a rapid labor or to facilitate delivery in a protracted case in order to avert subsequent hemorrhage, is often difficult to decide.

Unquestionably, the most frequent cause of postpartum hemorrhage is the improper management of the third stage of labor, through neglect, or want of knowledge of the principle of contraction and retraction of the uterine muscular fibers which act as Nature's ligatures in controlling the uterine vessels, favor the formation of thrombi in the uterine sinuses, separate and extrude the placenta. Disregard of this important function of the uterine musculature is liable to be attended by grave consequences.

Every student and nurse should be taught at the bedside the method of grasping the fundus of the uterus, as proposed by Credé, for placental expression. No attempt should be made to deliver the placenta until the fundus rises to the level of the umbilicus, indicating that it has become detached from the uterine wall. At least a half-hour should elapse before expressing the placenta, unless there is actual uterine relaxation or hemorrhage. This allows the uterus to rest and prepare itself for the completion of the third stage. When the placenta is adherent, or if there is retention of clots, the fundus should be grasped in the palm of the hand, with the fingers on the posterior and the thumb on the anterior, and at the height of a contraction pressure made in the axis of the pelvis. If this fails to expel the placenta or clots, it may be necessary to introduce the hand into the uterus to remove them. But care must be exercised not to puncture the wall. In an emergency, bimanual compression, with one hand in the vagina pressing the cervix upward and grasping the fundus and forcing it downward against the symphysis, will effectually check the hemorrhage and allow time for preparing the intrauterine douche and subsequent tamponade. The placenta is sometimes retained and inverted, particularly if traction has been made on the cord. If it can not be expelled by uterine compression, the index-finger should be passed above the inverted edge, hooked into the placenta, and then slight traction will be sufficient to remove it.

I have not infrequently had to deal with postpartum hemorrhage of greater or less severity, and several of the cases are worthy of mention. The first occurred in a multipara who was attended by a midwife. I was summoned about two hours after delivery and found the patient in collapse. Examination showed the fundus uteri to be at the level of the umbilicus, and the uterus contained about a quart of clots. The débris was removed manually and further hemorrhage prevented by intrauterine irrigation and ergot hypodermically. The second case, that of a multipara, was also under the care of a midwife. When I reached the bedside, the patient had been delivered and was having a severe hemorrhage. Examination revealed a partially adherent placenta which was quickly peeled off with the finger and removed, and the uterus douched and packed. The third occurred in a case of Cesarean section complicated with inertia. After the extraction of the child, the uterus collapsed like an empty bag, and there was a marked hemorrhage. For a time it was thought that the Porro operation would be necessary to control the loss of blood. But the liberal use of salt solution, together with compression and gauze packing, finally checked the bleeding. All these patients required stimulants and hypodermoclysis to counteract shock; but recovered after protracted convalescence.

In secondary postpartum hemorrhage, like the primary, preventive treatment is the most satisfactory. If the third stage and the puerperium are properly managed, this complication can usually be avoided. The direct treatment consists in completely removing placental débris or clots and securing complete uterine contraction.

One of the most alarming cases of secondary hemorrhage with which I have ever had to contend was in connection with a case of blighted ovum. When I reached the patient, she was blanched and almost pulseless. Free stimulation and hypodermoclysis were given and the uterus packed. The patient's critical condition made it necessary to defer the removal of the mole until the following day. The acute anemia yielded slowly to the treatment and the patient had to be sent to the seaside to promote recovery.

Injuries to the cervix, vagina and pelvic floor may be greatly minimized by careful attention to the mechanism of labor, retarding the passage of the child in rapid labors and avoiding undue haste in instrumental and operative deliveries. Hemorrhage from laceration of the cervix should be controlled, preferably by suture, and all tears of the vagina and pelvic floor, no matter how slight, should be closed immediately to guard against subsequent hemorrhage or infection.

After the control of the hemorrhage, anemia and shock will demand careful attention. Heat, stimulants, opiates, salt solution, administered intravenously, hypodermically or by rectum, should be employed according to the requirements of the particular case. Strychnin and ergot are of signal value in uterine hemorrhage; the former for its stimulating effect, and the latter on account of its specific action on the uterus, in reinforcing its contraction and thus insuring more complete occlusion of the uterine vessels.

In conclusion, owing to the want of knowledge of the cause of accidental and unavoidable hemorrhages, the mortality from such sources, even in the hands of the skilled and experienced obstetrician, is high. Postpartum hemorrhage and lacerations of the parturient canal, on the other hand, are among the most amenable of obstetrical complications, but require an intimate acquaintance with the proper procedure under such conditions. My reason, therefore, for bringing to attention a subject so familiar to all is not its frequency, but the emergency of the situation which demands early recognition, prompt decision and action, in that it involves the life of the mother and the child, and as regards the physician himself, his professional reputation.

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The Relation of Necrosis of Fatty Tissues and Arteriosclerosis to Diabetes Mellitus.—L. Bleibtreu (*Arch. f. ges. Physiol.*, cxxiv, 52), in connection with his work on diabetes, observed a case of advanced diabetes mellitus in a man aged 39, associated with extensive fat necrosis in the region of the pancreas, in the mesentery, in the costal and diaphragmatic pleura and especially in the duodenal serosa. There were no necrotic changes in the tissues of the pancreas itself. In accord with Pflüger's observations, Bleibtreu advocates as a tenable hypothesis that the extensive fat necrosis around the pancreas and duodenum had materially damaged or destroyed the nervous connections of these organs, producing as a consequence diabetes mellitus. Similarly in a case of diabetes with associated extensive arteriosclerosis in the pancreatic and abdominal arteries, Bleibtreu sees extensive disturbance of the visceral nerves with resulting diabetes.

PAIN AND POTT'S DISEASE, WITH ESPECIAL REFERENCE TO BACKACHE *

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The term "backache" is one which is frequently employed, and often very loosely. By "backache" the laity mean any "misery" or discomfort, located anywhere between the foramen magnum and the gluteal folds. As most backaches are situated below the diaphragm, however, this part of the anatomy is usually meant when backache is spoken of outside the profession. While backache is at times a valuable symptom, the indefiniteness which is so often associated with it makes it misleading to both the public and the physician. The large number of kidney-cures (many of which contain as much as 40 per cent. alcohol), which are so conspicuously advertised, tells plainly to what mischief it may lead. Many a benighted individual, by mistaking the ache over the upper sacral region, very common in neurasthenia or fatigue, for an indication of Bright's, doubtless often induces an incipient nephritis in kidneys which were normal before the exhibition of the "cure" from which he has sought relief. I believe that the number of backaches dependent on lesions of the kidneys is considerably less than we have in the past been disposed to think. A case I will cite shows that the physician also may misinterpret the significance of backache, and illustrates the great need of caution in diagnosing the significance of pain symptoms generally.

First Attack.—On July 28, 1908, I found A. H., a tall, lean Afro-American, in his thirty-sixth year, suffering with excruciating pains in his left hypochondriac and left lumbar regions. The thighs were flexed on the abdomen and the patient was doubled up on his left side between hot bricks and hot-water bottles, wearing a facies indicative of acute pain and distress. The pulse was regular, full and tense, temperature normal. The attack had come on suddenly, with some nausea at the onset. The pain radiated to the left lumbar region and left groin. The abdomen muscles were rigid over the painful area and there was tenderness on pressure, particularly over the region of the kidney both in front and behind. There was no history of painful or blood-colored urine. The only previous history of any moment was that, following an attack of what had been called grip, the patient had for a year been below his previous standard good health. The patient gave an indefinite account of attacks of pain similar to the present, experienced during childhood.

Course of Disease and Subsequent History.—Two ¼ gr. doses of morphin given hypodermically brought relief and the attack subsided. An examination of the urine revealed a clear amber fluid of 1015 specific gravity, showing a small trace of albumin and a few white corpuscles. Blood examination showed no increase in the leucocytes. Tenderness over the left kidney continued after the attack and the organ felt enlarged to the palpating hand. The urine was freely voided after the attack of colicky pain. A provisional diagnosis of renal or ureteral calculus was made.

Two weeks later an attack came on precisely similar in character to the one just described, but there was no abatement of the pain, except under large doses of morphin, until six days later, when an exploratory operation was performed by Dr. Acheson Stewart at the Mercy Hospital. A thorough examination of the kidney, its pelvis and ureter, failed to discover stone or other pathologic condition than a moderately enlarged organ with a shallow-fissured surface. Radiography had previously shown no shadow of a foreign body, but we had assumed that, if present, its texture was of such nature that a shadow could not be observed. A very slight leucocytosis was present before the operation. There followed a speedy con-

* Read before the College of Physicians, Pittsburg, April 22, 1909.

valescence from the operation, with cessation of pain crises for two months. At the end of this time some weakness of the back was still complained of and the urine showed a few leucocytes and doubtful red cells. Ten weeks after the operation and again at twelve weeks attacks recurred like the one first described. A course of salicylates was now followed by relief from pain for two months but more or less invalidism persisted. Then there set in a continuous, very severe pain in the muscles of the back in the lumbar region and toward the right hip joint behind. This resisted all efforts at successful treatment—antirheumatic, antisyphilitic, antineuritic and antineurasthenic—when, after a month the pain centered entirely in the right hypochondriac and right lumbar regions. The patient was again placed in the hospital, where, on suspicion and a history of an ancient penal sore, large doses of potassium iodid were prescribed. Under three days of this medication the pain shifted to the right thigh, knee and right leg (the anterior border of the tibia)—these areas claiming first one and then another, the location of greatest severity from day to day. An important difference was now noticed for the first time in the temperature chart; a previously normal temperature began showing an evening rise of about one degree. We believed that a tuberculous focus had been stirred into activity by the potassium iodid and were about to attempt a verification of this by a von Pirquet test when, with a rather sudden focusing of the pain to the right of the lumbar vertebræ and the appearance of a bulging, tender mass at this point, our interesting and varied trail of diagnosis was brought to an abrupt close. The exploring needle established the already unmistakable diagnosis of a tuberculous abscess, the process having undoubtedly existed for a long time and given rise to the varied manifestations of pain already described.

Janeway has called attention to persistent lumbago as a symptom of importance in masked Pott's disease; this was truly conspicuous in my own case. The radiating pains and painful areas alluded to may have arisen from compression involvement, through inflammatory exudates on the roots of the spinal nerves, as they emerged from between the vertebræ. The pain locations and steady progression from above downward leads one to think this probable. A colleague has since related to me an experience almost identical with the above. In an adult farmer, after six months, a mass presented in the right lumbar region. In neither his case nor my own was any spinal deformity noticeable. Tenderness over some of the spinal vertebræ had been noticed by me, but its significance misinterpreted. Spinal pain following jarring movements or twisting of the spinal column (symptoms of Pott's disease) were disregarded until the diagnosis was already apparent.

I have given the above case in some detail because of its valuable suggestions in the study of pain symptoms, and because I am convinced that the above experience is not an uncommon one in such obscure cases of spinal caries. The symptom of pain was throughout the most conspicuous feature. While a valuable symptom when rightly interpreted, pain in this instance repeatedly diverted our attention from important signs which would have given an earlier diagnosis. The case was especially characterized by backache, this giving rise to three mistaken diagnoses: calculus, rheumatism and neurasthenia. Backache is an incident in so many affections that a few words regarding it seem appropriate at this time. Taken alone it is generally of little value. Indeed, it may prove a positive hindrance. In the lumbar region especially we must think of fatigue pain from overexertion, anemia and neurasthenia. The backache of flatulence and loaded colon must be thought of, particularly in women. In kidney lesions the value of backache has been overstated in nephritis, as it is probably of significance only in the acute processes; in other forms of kidney pathology—floating kidney, lithemic, perinephritic and tumor conditions, though present at times, it plays no positive part in diagnosis. Backaches which are symmetrically placed are, of course, of far less diagnostic significance than those which are unilateral. Schmidt, in his valuable treatise on pain, calls attention to this, as also to the tenderness on pressure found on the right side in appendicitis with retrocecal abscess, hepatalgia and cholelithiasis: on the left side in gastric ulcer, perisplenitis and pancreatic lesions. "The demonstration of the alimentary modification of backache is of importance, since it occurs in ulcerative processes of the stomach or large intestine. In these as well as in disorders of the colon, for example, carcinoma, the pain often occurs within even a few minutes after the ingestion of cold fluids or solid food." Chronic prostatitis is apt to be overlooked as a cause of backache. W. C. Bryant, in a recent paper,[1] emphasizes this fact, and offers an explanation, in the light of Henry Head's brilliant researches, in the intimate relationship existing between the pudic nerve, from which the prostate receives its spinal fibers, with the roots of the sacral and lumbar plexuses. This prostatically caused backache leads to diagnoses of sciatica and lumbago and at times simulates renal colic so closely that nephrotomy has been performed for stone.

While speaking of referred pains, it is well to remember that what is true of the prostate is true of the various internal organs. A well-known physiologist[2] tells us:

> Under normal conditions *cutaneous* pains are projected with accuracy to the point stimulated. Pain arising in the *internal* organs, on the contrary, is located very inaccurately. . . . Head especially and others have shown that the different visceral organs have, in respect to reflected pain, a more or less definite relation to certain areas of the skin. Thus we have pains arising from stimuli acting on the intestines, located in the skin of the back, loins and abdomen, in the area supplied by the ninth, tenth and eleventh dorsal spinal nerves. . . . those from the heart in the scapular region, and so on. The explanation offered for this misreference is that the pain is referred to the skin region that is supplied from the spinal segment from which the organ in question receives its sensory fibers, the misreference being due to a diffusion in the nerve centers. As Head expresses it:
>
> "When a painful stimulus is applied to a part of low sensibility in close central connection with a part of much greater sensibility the pain produced is felt in the part of higher sensibility rather than in the part of lower sensibility to which the stimulus was actually applied. Another notable fact in this connection is the occurrence of the condition known as allochiria. When from any cause one or other of the cutaneous senses is depressed in a given area, stimulation in this region may give sensations which are referred to the symmetrical area on the other side of the body, or, if this also is involved, it may be referred to the area next above or below in the spinal order."

It should be of great value to bear these physiologic facts in mind when we are dealing with obscure conditions of pain.

The valuable observations of Goldthwait have established the important fact that many of the severe and chronic backaches, especially of women, are due to sacroiliac disease. He has further shown that backache often dates from the time of some operation, generally on the pelvic organs, when, owing to a failure to support the back with cushions, during the operation, a

1. Bryant, William Cullen: The Symptomatology of Prostatitis, THE JOURNAL A. M. A., March 6, 1909, lii, 754.
2. Howell: Text-Book of Physiology, p. 267.

tremendous strain is thrown on the sacroiliac joints, often greatly increased by assistants on either side of the patient bearing most of their weight on the patient's thighs. The joints are left badly sprained and at times chronically inflamed. In the same way, improper methods of dress, by inducing abnormal bodily posture, with its consequent embarrassment to the viscera, doubtless is an etiologic factor of importance in many cases of obscure backache. This question of posture is of vastly more import than I am able at this time to suggest in its bearing on various pains and aches, to say nothing of its influence on the general economy of the body.

The acute fevers, appendicitis and other conditions, often accompanied or ushered in with backache, have other such definite pathognomonic symptoms that little importance attaches to this feature in such diseases.

The pain from uterine affections is most often referred to the upper sacrum—"a dragging sensation, generally referred to the brim of the pelvis posteriorly" (Kelly), being the complaint of that most common of all gynecologic ailments, retroflexion. Diseases of the ovaries, testicles and rectum, as also excessive venery and pelvic inflammations, may direct pain to the sacral region. Speaking of the pains of pelvic inflammations, Kelly makes the statement, which it seems to me good philosophy to follow generally, where pain is concerned, that:

> Inflammatory pain has a definite habitat. . . . The pain of inflammation is a fixed point; it is never in one place to-day and then at some remote part of the body to-morrow, one day in the shoulder and the next in the foot or calf of the opposite leg. . . . It is a safe working hypothesis to conclude that a patient who complains of a definite pain and who from day to day and week to week is definite in her complaint as to the character and seat of the pain, has some gross lesion.

It has been my aim to deal with those pains occurring in the lower dorsal, the lumbar and sacral regions—the commonest seats of backache. And it has manifestly been impossible to dwell on more than a few of the more typical examples. Schmidt, in his discussion of lumbar pain, says:

> After excluding lesions of the musculature or fascia, such as lumbago and diseases of the spine, like spondylitis, osteomalacia, etc., there is a wide range of possibilities in which nearly all the abdominal organs compete, including particularly the female generative system.

Some discredit has, I think, been attributed to Head's observations on the incidence and distribution of referred pain, by losing sight of the important fact that actual pain is not always experienced, but, "according to the intensity of the visceral stimulus, actual pain may be experienced, or there may result a state of hyperesthesia or hyperalgesia which manifests itself by an increased susceptibility to stimuli, so that contacts which would ordinarily evoke only sensations of touch now give rise to actual pain" (Schmidt). The observation that counterirritation applied over these cutaneous areas may result in relief of the pain and the underlying lesion throws a new light on the results, at times appearing to crown the arbitrary methods peculiar to osteopathy and other counterirritant curative agencies.

CONCLUSION

I believe that Pott's disease would be much more frequently and earlier diagnosed if its initial manifestations, of which pain in the form of backache is often conspicuous, were looked for and recognized.

Backache is of diagnostic value chiefly when unilateral and when guardedly controlled by some accompanying facts of diagnostic importance.

Familiarity with the work of Henry Head on the subject of pain, especially of referred pain, will often be found of the greatest help in reaching a correct and often a difficult diagnosis.

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THE CLINICAL INDEX OF THE THORAX ASSOCIATED WITH PULMONARY TUBERCULOSIS *

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Until very recently almost all text-books on medicine and physical diagnosis have described the thorax associated with pulmonary tuberculosis as flat, and even now some of them persist in this. For example, this statement appears in a recent edition, "The paralytic or phthisical chest is abnormally small, long and flat." This is a curious survival of a medical fallacy which apparently grew up simply because in the past no one had measured any considerable number of such chests. Most of them do appear to be flat, it is true, but taking measurements on a few will show that in most cases the flattening is not real and the appearance is an illusion. This is produced by the shoulders being displaced more forward and downward than normal, which makes the anterior surface of the chest appear to be displaced posteriorly—the type commonly called "round-shouldered" or "hollow-chested." There are two factors which tend to produce the displacement of the shoulders in this manner: (a) a more nearly round chest than the normal, and (b) relaxation or deficient development of the shoulder-girdle of muscles.

It remained for Hutchinson,[1] while engaged in a developmental study of the human thorax, to measure twenty tuberculous chests which he found to be more nearly round than the average normal chest. This he reported in 1897, and subsequent investigation convinced him that the average tuberculous chest is not abnormally flat, but is, on the contrary, abnormally round.

Measurements of the diameters of the chest are made on an imaginary horizontal plane passing through the junction of the fourth costal cartilages with the sternum. Dividing the anteroposterior diameter by the transverse diameter gives the ratio (usually expressed as a percentage) which the former bears to the latter, and is called the "clinical index" of the chest. Several thousand measurements taken at the Yale gymnasium and in the German army[2] place the average, normal, adult clinical index at 70 per cent., or 70 as it is usually expressed. There is evidently chance for a *considerable* degree of error in the procedure, as it is impossible to specify definite landmarks at which the measurements should be made, because of the varying degrees of tilting of the ribs found in different individuals. On the normal skeleton such a horizontal plane intersects the spine of the seventh dorsal vertebra, but this may occur

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* Read before the Section on Medicine of The New York Academy of Medicine, April 20, 1909.

1. Hutchinson, Woods: Some Deformities of the Chest in the Light of Its Ancestry. The Journal A. M. A., 1897, xxix, 512.
2. Hutchinson, Woods: Is the Consumptive Chest Flat? The Journal A. M. A., 1903, xl, 1196.

at the sixth or the eighth in abnormal chests. At the midaxillary line the plane passes through the fifth interspace in normal chests, but it frequently intersects the fourth or sixth interspace in tuberculous chests. Errors also arise because of variability in the thickness of the integument in different individuals, and because of unequal amounts of pressure placed on the calipers in making the measurements.

Hutchinson's first series of 20 cases[1] of pulmonary tuberculosis representing all stages of the disease gave an average index of 78. He subsequently reported 350 cases collected by him from various observers which showed an average index of 79.7. Of these, 40 were of his own which averaged 79.5; 42 cases in the Brompton Hospital (England) averaged 79.6; 75 cases collected by Colbeck of London averaged 80.3; 42 of these were in the first stage and 14 were women which averaged 84.3; White of Boston had 35 cases, with an average of 77.9, of which 10 were women averaging 78.3; Evans and McHugh[2] of Chicago had 107 cases averaging 80.8, and Abrams of San Francisco had 35 cases averaging 78. Bessesen[4] has independently reported 21 men with incipient tuberculosis who gave an average of 74.2, and 6 women, also in the incipient stage, averaging 75.2.

This report is based on a study of 1,022 measurements made on tuberculous patients in the Bellevue Hospital Dispensary and the Cornell University Medical College Dispensary. About one-half of them were made by various physicians in the Bellevue Hospital Dispensary, and the remainder by myself. As the results obtained by the others almost exactly agree with my own, the element of personal error seems to be eliminated.

This series of cases occurred in several races and many nationalities, including both sexes and all ages from 8 to 84 years, in all stages of the disease. The average clinical index of all the cases (1,022) is 75.98. In order to remove all possibility of error from including normal infantile chests, I have excluded all under 20 years of age, leaving 929 patients aged 20 years or more, which gave an average index of 76. This is somewhat lower than the averages noted by other observers, except Bessesen, whose results closely correspond with mine. The difference is, in some instances, because the measurements were taken at the level of the nipples instead of at the junction of the fourth costal cartilages with the sternum, as done by Bessesen and in this series of cases. The highest index observed was 100. The patient was a woman, aged 44, who gave a history of cough for three months and was in the incipient stage. There were no signs of emphysema, except that her anteroposterior and transverse diameters were each 22 cm.

While the average clinical index of tuberculous chests is greater than normal, not every such thorax, by any means, gives a high index; 245 (24 per cent.) of my cases were below 70. This fact greatly limits the value of such measurements in the diagnosis of pulmonary tuberculosis. Finding a high index in an individual case may increase the suspicion of tubercle infection, yet the value of the evidence is so slight that it can have very little weight. The lowest index observed was on a man, aged 39, who was in the second stage. His transverse diameter was 27.5 cm. and his anteroposterior 15 cm., giving an index of 54.4.

A considerable number of cases show indices which are exactly, or very close to, normal. Taking, for example, variations between 68 and 72, inclusive, I find that 219 (21 per cent.) come within these limits. There were, however, only 83 cases (8 per cent.) which were below 68, while 720 (70 per cent.) were above 72.

Sex is practically no factor in modifying the indices of tuberculous chests, as 808 males averaged 75.93 and 214 females averaged 76.16.

The question whether this increased index is the result of tuberculosis naturally arises. Hutchinson and Bessesen both concluded that it was not, and my findings tend to confirm this. If it develops because of changes in the lungs it is reasonable to conclude that the more extensive the pulmonary lesion the greater the resulting change in the thorax. Separating my cases into stages of the disease gives the following result:

Stage.	No. of Cases.	Average Index.
I	231	75.82
II	637	76.04
III	154	75.97

Though the average indices of the second and third-stage cases are slightly higher than that of the first-stage cases, the difference is so slight that it may be disregarded. The increase in index, then, is not in proportion to the extent of the pulmonary lesion and is, therefore, probably present before the lesion has developed in the lungs.

Classifying the cases by decades of life results as follows:

Decade.	No. of Cases.	Average Index.
1	2	84.50
2	91	74.40
3	311	74.62
4	354	74.43
5	190	80.50
6	63	77.82
7	10	77.40
8	1	79.00

The higher indices after the fourth decade are probably accounted for by the emphysema which normally develops with advancing years.

Some of the cases showed all of the signs of emphysema and consequently gave high indices. It was impossible, however, to exclude them, as one can not clinically decide how much is hypertrophic emphysema and how much is compensatory, having developed secondary to the tuberculous process. It is also unfair to exclude all indices above a certain point as being wholly due to emphysema, as some of the highest noted were on patients giving no signs of it; yet the fact remains that if it were possible to exclude all of those cases in which hypertrophic emphysema existed the average index of the series would be considerably lessened, certainly not above 74.5, which is the average index of the cases in the second, third and fourth decades, 756 in number.

What, then, is the cause of the abnormal relations of the diameters of the chest which exist in three-fourths of the individuals who later develop pulmonary tuberculosis? Hutchinson,[1] by a study of comparative and developmental anatomy, concluded that it was due to an arrest of development, and his conclusion seems to be well founded. With only two exceptions (whales and bats), all mammals below the anthropomorpha have chests which are deeper than they are broad; for example, horses, dogs and cats. They assume the horizontal position and are quadrupedal. It is evident that the chest best suited to their necessities is one which gives a maximum of room for expansion of the lungs without

3. Med. Exam. and Prac., 1902, xii, No. 10.
4. Bessesen, W. A.: Variations in the Ratio of Diameters of the Normal Chest at Different Ages. The Form of the Phthisical Chest, THE JOURNAL A. M. A., 1905, xlv, 2003.

compression of the heart and great vessels, and at the same time allows free movement of the forward limbs in running. This the deep or high-indexed chest gives. When, however, the forward limbs are not used for locomotion, but for climbing, swinging, defense and other lateral movements, the deep chest restricts the freedom of such motions, and the animal is better served by one which is more nearly round.[5] The anthropoid apes are examples of this class: they assume the semierect position and in them "the thorax is rather broad than laterally compressed."[6] In man, as has been shown, the thorax is normally flattened anteroposteriorly. Thus we see that in general as the mammalia ascend in the scale of development their chests become more flattened. The apparent explanation for the nearly round chests of whales and bats is that, as their anterior limbs are no longer used in ground locomotion, forward and backward movements, but laterally in swimming and flying, respectively, such a chest is best suited to their needs.

An examination of the human chest from fetal to adult life is of interest in this connection. At the fourth month of fetal life the chest is considerably deeper than it is broad—the lower mammalian type. During the later months the anteroposterior diameter relatively decreases until at birth the chest is practically round[7]—the anthropomorphal type; and after birth it gradually flattens out until the normal index of 70 is reached at about the eighteenth year. The period of most rapid change is during the first six years of life; and at puberty the index is about 80. It is evident, then, that each human chest in its development has gone through the same stages with respect to its diameters as has the human type in its ancestral development.

Having in mind the above, and that the type of chest in which tubercle infection most frequently develops is the same as the normal human chest at puberty, it is a fair conclusion that the typical tuberculous chest is one which has been arrested in its development at or about puberty. Bessesen[4] believes that the lack of development is principally in the transverse diameter, the anteroposterior becoming about normal. High-indexed chests have been shown to be common among paupers and the insane,[3] and a study of the literature and photographs leads me to believe that such chests may also be found associated with idiocy, cretinism and chondrodystrophy. High-indexed chests, then, are frequently associated with various forms of so-called degeneracy, which are really conditions of maldevelopment.

It has been suggested that the degree of abnormality in the diameters may have some influence on the prognosis of pulmonary tuberculosis, and Hutchinson[8] states that in 31 successive cases, of 16 patients who did badly the average index was 80.2, while 15 that did well averaged 74.6. My observations regarding this have not been sufficiently extensive to warrant a conclusion, though a few cases have shown results which lead me to believe that it may be true.

If high-indexed chests predispose to pulmonary tuberculosis, it is possible to lessen this predisposition by exercises which tend to produce an increase in the transverse diameter; such as climbing, swinging by the arms and movements laterally from the body. It also creates the presumption that it may not be best to prescribe for patients with pulmonary tuberculosis exercises which tend to develop deep chests.[9]

5. Hutchinson: Studies in Human and Comparative Pathology, 1901, Chapter v.
6. Huxley: Anatomy of Vertebrate Animals, p. 402.
7. Holt: Diseases of Infancy and Childhood, 1908, p. 24.
8. Hutchinson, Woods: Discussion on Dr. Bessesen's paper, The Journal A. M. A., 1905, xlv, 2007.

CONCLUSIONS

1. The typical tuberculous chest is more nearly round than the normal chest.
2. The increased index precedes development of tubercle infection in the lungs. It is due to an arrest of development at or about puberty and predisposes to pulmonary tuberculosis.
3. Abnormally high-indexed chests in children should be corrected by proper exercises.

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CHLOROFORM—THE IDEAL HEMOSTATIC IN PULMONARY HEMORRHAGE

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In spite of the great advance made in medicine during the last half-century, the treatment of pulmonary hemorrhage remains practically the same as at the time of Galen, with the addition only of a number of the newer drugs which do not seem to materially improve the solution of this vexed question. The therapeutics of this frequent complication in pulmonary tuberculosis is still based entirely on clinical experience, which in the main is unsystematic and haphazard. Morphin, atropin, ergot, hydrastis, lead acetate, stypticin, adrenalin, calcium chlorid, gelatin, nitrites, magnesium sulphate, and a host of other drugs used either singly, in combination, or in rotation, are doled out to the patient with more or less disappointment until Dame Nature, in spite of the drugs and the deranged digestion resulting from their employment, comes to the sufferer's rescue and by her *vis medicatrix* brings about the formation of a blood clot at the bleeding point.

The lot of a patient afflicted with pulmonary hemorrhage is, indeed, pitiful and his aspect at once evokes compassion. Compelled to lie flat on his back without even a pillow under his head, enjoined from changing his position, or at times even his clothes, no matter how irksome or oppressive, forbidden to turn his head or utter a word, subjected to the inevitable ice-bag, which occasionally leaks and chills him to the bone, stuffed with cracked ice in lieu of food, given frequent hypodermic injections, the patient must needs look very forlorn and think of naught but his impending doom. Nor is the position of the attending physician an enviable one, harassed as he is by anxious relatives and uncertain as he must be as to the results of his treatment.

In a previous paper[1] I made cursory mention of the successful use of chloroform in the treatment of pulmonary hemorrhage. Since that time I have continued my experiments with the drug and have given up one by one almost all the above-mentioned medical agents, limiting my treatment even in very severe hemorrhages to chloroform only. I am happy to report most excellent results from the use of chloroform in nineteen

9. Med Rec., 1905, lxvii, 645.
1. Clinical Observations on Pulmonary Hemorrhage, The Journal A. M. A., March 13, lii, 883.

cases of pulmonary hemorrhage, two of which ordinarily would have been regarded as probably fatal.

The routine treatment has always been uncertain and empirical because of the fact that the bleeding point is not accessible and therefore can not be reached directly by hemostatics. Our aim, therefore, must be to bring about a blood clot in an indirect manner. This may be achieved in one of the following ways: (1) by reducing the force and rate of the heart beat; (2) by reducing the blood pressure; (3) by reducing the respiratory movement.

Now the effect of chloroform on the circulation is chiefly to depress the vasomotor system, causing an extraordinary fall of blood pressure. Complete vascular relaxation ensues, facilitating the passage of the blood from the arteries into the capillary network and veins. The patient is, so to speak, bled into his own vessels. There is also some cardiac enfeeblement and dilatation, which likewise contributes to the fall of blood pressure. Chloroform has also a depressant effect on the respiration, because of the lessened supply of blood to the respiratory center.

As chloroform produces coagulation of the blood *in vitro*, it is possible that in some cases its action in the body is aided by direct contact of the vapor with the bleeding point.

In chloroform, therefore, we have all the requirements for an ideal hemostatic. It lessens the heart action, reduces the blood pressure and diminishes the respiratory movement. It acts promptly and efficiently and, what is more, it leaves the digestive tract intact.

The patient being placed in a semirecumbent position, from 2 to 4 c.c. of chloroform are dropped on the usual inhaler, or wad of cotton, and held near the nostrils of the patient. The hemorrhage will cease within five or ten minutes. During the following twenty-four or forty-eight hours the patient will be bringing up blood clots. The inhalation of 15 to 20 drops every hour is continued for a few days. Ammonium chlorid with small doses of codein is given internally every four hours. The ammonium salts favor expulsion of retained secretions, whereby we hope to avoid an aspiration pneumonia and the codein will prevent excessive coughing. It is also a good plan to administer a teaspoonful of magnesium sulphate three times daily to remove excrementitious matter which, when retained in the blood, will stimulate the vasomotor center and raise the blood pressure.

In the limited number of cases in which I had the opportunity of using chloroform the results have been all that could be desired. Being fully aware of the paucity of material on which this study is based, I hope that a more extensive trial by the profession at large will bring out more fully the value of chloroform in pulmonary hemorrhage.

Antituberculous Substance in Tuberculous Glands.—Dr. A. Fontes (*Brazil med.*, 1908, xxii, No 40) offers the following conclusions derived from his studies *in vitro* of the tuberculous glands of guinea pigs: 1. There exists in the tuberculous glands of guinea pigs a substance capable of reducing the number of tubercle bacilli in a given emulsion. 2. This substance does not exist in normal glands. 3. The maximum effect of this substance is exercised after 120 hours' contact; when it has reached this it ceases. 4. The addition of a larger amount of extract of tuberculous gland extract, after the appearance of the action, does not cause a new diminution of the number of bacilli. 5. This substance is not reactivated by the addition of fresh serum from a new guinea pig.

ISOHEMOLYSINS AND ISOAGGLUTININS OF HUMAN SERUMS, WITH SPECIAL REFERENCE TO CANCER

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In 1892 Maragliano[1] directed attention to the fact that the blood serums of patients afflicted with various diseases exerted a destructive influence on the blood corpuscles of healthy individuals, and also on the corpuscles of pathologic cases and set free hematoidin. He expressed the opinion that the reduction in sodium chlorid in the blood in different conditions of disease was a factor in the solution of red cells. This appears to be the first observation on isolysins of human serums.

Ehrlich and Morgenroth[2] demonstrated that the blood serums of goats that had been immunized by homologous blood corpuscles contained isolysins, the serums of the immunized goats being hemolytic for the corpuscles of other goats.

Von Dungern,[3] on the other hand, found that the serums of guinea-pigs that had been immunized with the tracheal epithelia of cattle was not only destructive to the tracheal epithelia of the latter, but also exhibited an hemolytic influence on the blood corpuscles of cattle.

Landsteiner,[4] in 1890, showed that human serums often agglutinated human corpuscles. He found this phenomenon of agglutination especially marked in the blood of diseased individuals.

The first extensive clinical application of the phenomena observed by Maragliano and Landsteiner was made by Ascoli,[5] who examined seventeen normal persons and ninety-seven patients for isohemolysins and isoagglutinins. He employed in his technic a mixture of equal parts of serum and of blood corpuscle suspension. He used a 2½ per cent. suspension of blood corpuscles for the hemolytic reaction and one-half of this for the agglutination reaction, the serums for the latter being employed in different dilutions. His controls consisted of suspensions of the blood corpuscles in salt solution.

He found the agglutinating power of the serums of healthy individuals hardly observed in a higher than a 1 to 20 dilution of their serums, while in pathologic conditions it was often found in much higher dilution. In the examination of normal bloods, hemolysis was in most cases *nil*. In a very few he had observed a trace of solution and in rare cases a slight solution of red cells had occurred, as indicated by the rose color of the fluid after sinking of the cells.

In the examination of the serums of pathologic cases with relation to hemolysins, he found negative results with 5 cases of chlorosis, 2 of infection with *Anchylostoma duodenale*, 1 of abscess, 3 of acute rheumatism, 3 of exudative pleurisy, several of bronchitis, several of acute and chronic gastritis, 2 of lead-poisoning, 1 of acute and 2 of chronic nephritis.

On the other hand, he found strong isoagglutinating and isohemolytic properties in the serums of two patients with carcinoma of the stomach, a probable Addi-

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1 Maragliano: Verhandl d xi Cong f inn Med, Leipzig, 1892; Deutsch med Wchnschr, 1892 xviii, 411
2 Ehrlich and Morgenroth: Berl klin Wchnschr, 1900, p 37
3 Von Dungern: Munchen med Wchnschr, 1899, xlvi, 1128
4 Landsteiner: Centralbl f Bakteriol, 1900 xxvii, 356
5 Ascoli: Munchen med Wchnschr, 1901, xlviii, 1239

son's disease, and a multiple pneumococcus infection. He examined chiefly cases of pneumonia, typhoid and tuberculosis.

In tuberculosis he had observed the serums able to dissolve erythrocytes and also to agglutinate them in a greater dilution than did normal serums. He also noticed marked isolytic properties of the blood serums of pneumonia patients. He states that isoagglutinins and isolysins are not to be found constant in the diseases mentioned, and that it was advisable to allow serum to act on the blood corpuscle suspension of different individuals as the isolysins are not active against the erythrocytes of every one.

From the experiments of Bordet, Ehrlich and Morgenroth, von Dungern, Ascoli, etc., it was evident that inoculation with the cells of an homologous or heterologous species, or, as might be expected with a tumor growth, would give rise to the formation of isolysins in the immunized individual or animal.

Weil[6] observed this peculiarity of the serum of tumor dogs for erythrocytis of normal dogs. He examined a number of patients suffering from cancer, etc., and observed the same phenomenon.

Crile,[7] Blumgarten[8] and Whittemore[9] have also reported on this peculiar property of the serums of patients suffering from cancer, tuberculosis, etc., the technic employed by them being practically the same as that recommended by Landsteiner, Ascoli, etc. Blumgarten, as had been recommended by Landsteiner, used the washed corpuscles, without salt solution, as Maragliano had stated in his communication that among other factors the decrease of sodium chlorid in the serum of diseased patients had something to do with their dissolving red blood corpuscles.

In order to determine whether or not the hemolytic reaction had any specific value in the diagnosis of disease, we examined the bloods of a number of individuals. Some of these were healthy adults, others were suffering from cancer, typhoid, pneumonia, gastric ulcer, etc.

We found on completion of our work that our observations coincided in many points with those of Ascoli. We had not made any effort to estimate quantitatively the agglutinin content of serums: we did, however, observe a definite relation to exist between isolysins and isoagglutinins to which Landsteiner[10] had referred conjecturally in his first communication on isoagglutinins.

Among the seventy cases examined, we tried nine normal persons against each other for isoagglutinins and isohemolysins.

Landsteiner[11] divides individuals into three main groups by means of isoagglutination, namely: (1) those whose corpuscles are not agglutinated by the serums of Groups 2 and 3, but whose serums agglutinate the corpuscles of these groups; (2) those whose corpuscles are agglutinated by the serums of Group 3 and whose serums agglutinate the corpuscles of Group 3; (3) those whose corpuscles are agglutinated by the serums of Group 3 and whose serums agglutinate the corpuscles of Group 2.

According to this classification for agglutination, 4 of the normal persons belonged to Group 1, 4 to Group 2, and 1 to Group 3. In 4 the supernatant fluid showed a faint pinkish tinge, one tube showing a considerable trace of solution. In these tubes agglutination of corpuscles had occurred. We did not notice isoagglutination of the strictly homologous corpuscles. In none of the tubes in which isoagglutination had not occurred was any trace of hemolysis present.

Among the pathologic cases examined by us were 22 of cancer, mostly of the stomach, uterus and breast. In 13 of these, or 59 per cent., we found isohemolytic serums, some hemolyzing the corpuscles of cancer patients. Of 8 cases of tuberculosis, 3 showed the hemolytic reaction, 1 hemolyzing the corpuscles of another tuberculous patient. We did not observe the reverse hemolysis in tuberculosis referred to by Crile.

Of 5 typhoid patients, 2 gave a strong hemolytic reaction, 1 of these hemolyzing the corpuscles of another typhoid patient as well as of a normal person.

Of 5 pneumonia patients, of whom 1 was convalescent, the serums of 2 showed a strong isolytic action. Ascoli found in 1 case of pneumonia a decrease in the hemolytic action of the serum from week to week until it disappeared.

In 2 cases of gastric ulcer, 1 of convalescent malaria, 1 of pernicious anemia, 1 of postdiphtheritic paralysis, 1 of salpingitis and 1 of pregnancy, the serums were found to be isohemolytic.

Two cases of pleurisy with effusion gave a negative result.

The degree of isolysis observed in the Maragliano reaction in diseased conditions is quite variable, some red cells showing apparently a greater degree of resistance than others, and some a complete resistance to the action of isolysins. According to Landsteiner, Ascoli, Hektoen,[11] etc., the isoagglutinins are considerably increased in some diseased conditions over that found in normal individuals.

Landsteiner, who first thought a relation existed between isoagglutination and isohemolysis, stated in a subsequent communication that an essential difference existed between the phenomena of isoagglutination and of isohemolysis, in that in the Maragliano reaction the serum acts on the corpuscles of the same individual.

In the pathologic serums examined by us we observed the hemolytic action of the serum on the corpuscles of the same individual in two cases of cancer and one of convalescent malaria.

On the other hand, we observed a close relation to exist between isohemolysis and isoagglutination in the examination of bloods of pathologic cases. This association was so frequently observed that we could apprehend with considerable certainty before examining the corpuscles that they had been agglutinated from the pinkish color of the supernatant fluid.

While this observation is not constant, it is sufficiently frequent to influence greatly the results obtained with the hemolytic reaction.

It would appear from our observations that the frequency of what is commonly termed a positive isohemolytic reaction will depend usually on two factors: (1) to what group with regard to isoagglutinins the suspected blood belongs, and (2) whether there are bloods among those against which it is tested whose corpuscles will be agglutinated by the serum of the suspected blood, and it is immaterial apparently whether the cor-

6. Weil: Observations on the Hemolytic Reactions of the Blood in Dogs Affected with Transplantable Lymphosarcoma (abstr.), The Journal A. M. A., Jan. 4, 1908, l, 64.
7. Crile, George: Hemolytic Tests for Malignancy (abstr.) The Journal A. M. A., June 27, 1908, l, 2150; also: Jour. Am. Surg. Assn., 1908, xxvi, 619.
8. Blumgarten: Med. Record, 1909, lxxv, 61.
9. Whittemore: Boston Med. and Surg. Jour., 1909, clx, 77.
10. Landsteiner: Wien. klin. Wchnschr., 1901, xiv, 1132.
11. Hektoen: Jour. Infect. Dis., 1907, iv, 297.

puscles are from another case of cancer, tuberculosis, etc., or a normal. We find confirmation of this latter observation in our work in the original statement of Maragliano, that the serums of pathologic cases are hemolytic for the corpuscles of diseased individuals as well as for the corpuscles of normals.

In regard to the nature of the isolytic substance, Ascoli was able to show that its activity was destroyed by heat, but that it could be reactivated by the addition of a fresh serum. This would seem to indicate that it was an amboceptor that depended on the presence of complement for exerting its hemolytic influence on blood corpuscles, and that it was not due to the action of any toxin produced by an infectious agent.

On the other hand, holding in mind the experiments of von Dungern, Ehrlich and Morgenroth, Ascoli, etc., it would seem that this hemolytic property of pathologic serums was associated in some way with cell destruction, and that, as Ascoli suggests, a reaction of the organism against the absorbed products of cell destruction results in the formation of antibodies which are hemolytic.

We examined, several weeks ago, among others, a student's blood which was taken as normal. At that time his serum, which agglutinated the corpuscles of Groups 2 and 3, did not show any hemolytic action on human corpuscles. We examined his blood a few days ago and found that his serum hemolyzed corpuscles which it agglutinated to about the same extent as had a cancer serum in the same series of examinations. On inquiring into the history of the student during the interim of examinations, we found that he had lost about seventeen pounds in weight. He denied any infection and said that he felt well, but tired. He attributed his loss of weight to increase of work and loss of sleep in preparing for state examinations.

The circumstances in this instance, in which a normal-acting serum was converted into a pathologic-acting serum, would seem to support the theory that the isohemolytic property of serum is dependent on absorption products or antibodies of absorption products of abnormal cell degeneration.

In reviewing the literature of this subject and in analyzing our own work, which we find to conform to the earliest observations on this subject, we can see no reason for bringing this isohemolytic action of serums into specific relation with any one disease or condition. On the other hand, we can confirm Maragliano's original observation, that the serums of many pathologic cases may exert an hemolytic influence on the blood corpuscles of normal and diseased individuals.

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Lessons from the Russian Cholera Epidemic.—The Russian medical societies are now reporting the experiences of members during the recent cholera epidemics at various points. The importance of bacilli carriers in the dissemination of the disease is generally emphasized—this being evidently responsible for the spread of the epidemic at Dorpat and possibly explaining also the flaring up of the disease after it has been apparently extinguished by the winter's cold—the germs being kept alive by repeated contact infection. In the preceding epidemic a number of cases broke out simultaneously, all traced to contamination of the water, but in the present epidemic the cases occurred at long intervals and in widely separated parts of the city, probably the result of contact infection, possibly by intermediation of sound bacilli carriers. All agree that personal hygiene is the most effectual means of prophylaxis against cholera so that in highly civilized communities there is comparatively little danger from the disease.

EPILEPSIA PARTIALIS CONTINUA OCCURRING IN CEREBRAL SYPHILIS

REPORT OF A CASE, WITH OPERATION *

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It seems almost incredible that any form of epilepsy should exist and yet not be well recognized. The literature of this disease is very extensive, and much of it contains little that is new. There is a type of epilepsy, however, which does not appear in the text-books, and even in the most recent writings receives scant recognition. Thus, Oppenheim[1] mentions it in a few lines by stating that cases occur in which during the interparoxysmal period muscular twitchings of short duration and without loss of consciousness are observed in one or another portion of the body. It has been described, especially by Russian writers, as "epilepsia continua" (Koshewnikow, Muratoff, Bechterew); Bruns also mentions it.

The cases differ from those of myoclonic epilepsy; the twitchings are limited to a small portion of the body, and are more intense than in myoclonia.

The name, "epilepsia partialis continua," seems to have been first employed by Koshewnikow,[2] who reported four cases in 1894. Characteristic epileptic attacks occurred in all four cases; sometimes they were abortive, sometimes they were with loss of consciousness. No period of cessation occurred between these attacks, as in certain portions of the body clonic movements persisted with variation in intensity, and when these movements became very severe they passed into an ordinary epileptic convulsion. The patients were unable to work, as they held the twitching limbs with those not implicated by the movements. In two of the cases the disorder began with local spasm, which passed into the ordinary epileptic convulsion; in the other two the persistent clonic movement followed the ordinary epileptic attack. No information as regards pathology was obtained either by operation or necropsy. This form of epilepsy has, since the report of these cases, been called, by some writers, Koshewnikow's epilepsy.

Orlowski[3] reported a case of this type in which general epileptic attacks occurred after an infectious disease, and later the patient had attacks every ten or fifteen minutes without loss of consciousness. Twitching of fibrillary or tic-like character was seen in the right side of the face, implicating also the tongue and larynx and continuing during sleep. The right limbs were weak. The case was thought by some of those who heard the report to be functional and not organic. No pathologic cause was determined.

Choroschko has written a monograph on this form of epilepsy, but, as it is in the Russian language, I have been obliged to depend on abstracts.[4] In the *Jahresbericht für Neurologie und Psychiatrie*, 1907, it is stated that Choroschko reports three cases of his own and refers to eleven in the Russian literature. Outside of

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1. Oppenheim: Lehrbuch der Nervenkrankheiten, *ed. 5, p. 1389.*
2. Koshewnikow: Neurol. Centralbl., 1895, p. 47.
3. Orlowski: Neurol. Centralbl., 1896, p. 526.
4. Choroschko: Neurol. Centralbl., 1908, p. 279; Jahresb. f. Neurol. u. Psychiat., 1907, p. 772.

Russia, Bruns alone has observed this rare type. Choroschko differs from Koshewnikow in that he believes the lesion is subcortical and suggests the name "polyclonia epileptoides continua." The twitchings are clonic and extend gradually from a limited area, and usually synergetic muscles are affected, especially on the right side. There seem to have been no lesions found either by operation or necropsy, so far as one may judge from the abstracts.

It may not be amiss, therefore, to report a typical case of this partial constant epilepsy, especially as it is one in which operation was performed. It shows that the lesion may be cortical.

History.—The patient, a colored man, aged 22, was admitted to my service at the Philadelphia General Hospital, Feb. 19, 1908. He gave a clear history of syphilitic infection. In July, 1908, he had his first convulsion. The fingers of the right hand twitched at first slightly but later more severely, and the convulsion confined to these members lasted about twenty minutes and left a paralysis of the hand persisting about fifteen minutes. He had another convulsive attack confined to the right hand in about three weeks. The whole right upper limb became implicated in the third attack, and this attack was followed by unconsciousness. There seems to have been involvement of the face and right lower limb also in the fourth attack. After these repeated attacks persistent weakness of the right upper limb ensued.

Examination.—The weakness of the right side of the face increased greatly after the man entered the hospital, and the palsy was of the cerebral type, i. e., slight in the upper part of the face and almost complete in the lower part. The weakness of the right upper limb also increased considerably, and the right biceps and triceps reflexes were much exaggerated, whereas the corresponding reflexes on the left side were normal. Stereognostic perception and sense of position were lost in the right hand. Tactile sensation also seemed to be diminished in this part, but was normal in the face. The motor power was about normal in the lower limbs, and the patellar reflex was only a little prompter on the right side. Babinski's sign was not distinct on either side. The ocular examination revealed little that was abnormal.

The case was clearly one of syphilis of the brain with convulsions of the Jacksonian type, only the right side of the body being involved, and the persistent paralysis being confined to the right side of the face and the right upper limb. Other attacks which the patient had made the case an unusual one and worthy of careful study.

Independently of the typical attacks he had twitching confined to the right side of the face lasting an indefinite period, an hour or more at a time and occurring very frequently. There were periods in which he had none of these spasmodic movements, but the movements were almost constantly present, and resembled a tic movement or fibrillary twitching. They were not excessive in their intensity, and implicated the muscles about the right side of the mouth, about the right eye, the right cheek, the right ear, and the right side of the neck. After persisting for some weeks in the face they ceased in this part, and were observed in the right upper limb. The whole right upper limb was displaced in these clonic movements, but the displacement was not excessive, and the spasm consisted of slight twitchings lasting indefinitely as did the previous twitchings of the right side of the face. There was no impairment of consciousness. The peculiarity was the almost constant duration of fibrillary or twitching movements in the face at first and later in the right upper limb, movements that were very unlike the severe spasmodic contractions usually seen in an epileptic attack, both in intensity and duration.

It is a question whether operation is advisable in cerebral syphilis. Two cases with operation have been observed by me in addition to the one described in this paper; in one the removal of a gumma of the dura was followed by much improvement during a period of seven or eight years, but the patient eventually died of his syphilis. In another case excision of a gumma of the brain was performed, but the result was far from satisfactory, and in the case reported in this paper operation accomplished little. However, as there seemed to be a chance for the patient from operation, I referred him to Dr. Edward Martin, whose report is here given:

Because of the failure of mercury and iodid treatment, the steady progression of symptoms, the possibility of their leading to a fatal termination, operation was deemed advisable in this case. The Rolandic area was exposed by a periosteal flap which was raised by means of a Crile cutting tool driven by an electric engine. The dura was raised without difficulty, exhibiting only slight adhesion to gummata placed in the arm and face centers. A portion of this tissue was excised by circular excision, the obvious vessels leading to it being first encircled by fine gut carried by means of a fine pointed curved needle. The operation was attended by trifling shock.

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MEDICAL PSYCHOLOGY

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I make the following extract from an editorial in the London *Lancet*,[1] in 1885, based on an elaborate report by Buchanan, professor of surgery at Glasgow University, of the results that he saw during a visit to Lourdes:

> There can be no question that faith-healing is a fact. The brain is not simply the organ of the mind; it is also the chief center or series of centers of the nervous system, by which the whole body is energized and its component parts, with their several functions, are governed and regulated.
>
> There is no miracle in healing by faith, whereas it would be a miracle if the organism, being constituted as it is, and the laws of life such as they are, faith-healing did not under favorable conditions occur. . . .
>
> Pathologists will limit the area of the process to the province of functional diseases, but we are not sure that we are justified by scientific facts in making this limitation. . . . It is a fact in pathology that if the functions of an organ be maintained or restored, much of the destructive metamorphoses . . . may be arrested and to some extent repaired. . . .
>
> The "vis medicatrix Naturæ" is a very potent factor in the amelioration of disease, if only it be allowed fair play.

This extract is from an editorial written in 1885 in one of the most reliable and conservative of medical journals published in the English language; and now, in 1908, we still find ourselves shutting our eyes to this all-important department in the healing art, and relegating its practice to ignorant charlatans, enthusiastic religionists and fanatics and mystics of endless variety.

Is not the mind as essential to the well-being of the patient as is the body? And by what law of Nature is the treatment of disease by scientific means limited to mechanical and chemical agents?

If the mental activity of the patient has been an active agent in the production of disease—and no one disputes that this is in every case an important factor—how can it be unscientific or unprofessional, or undignified, to use this same mental activity of the patient to assist in the relief of his suffering?

The answer that many would make to this question is that mental activity is such an intangible, imponderable and un-understood force that we must ignore it, and thus leave its management to those sufficiently ignorant and unscientific to undertake its direction. Could a greater confession of incompetence to care for and direct those needing our aid be admitted than this?

If the mind is an important element in the protection

1. June 13, 1885, p. 1093.

from and the relief of disease, is it not as much our duty to study the mind and its functions as it is to study the body and its construction and functions? Or, briefly, is not psychology as essential a study for the physician as anatomy and physiology?

Have we not neglected an important part of our duty, and are we not, even if more scientific, quite as narrow and one-sided in our treatment of disease as those who attempt through the study and direction of the mind alone to restore the body to health?

Had we not been blinded by our narrow prejudices, the editorial just quoted and similar articles and discussions so long ago would have aroused our interest and led to our investigation, and we would have realized that we were neglecting an important element in the care of the sick and the prevention of disease.

The laity naturally look to us for direction in these matters, but in this we have failed them, and they are, in consequence, drifting away from us, and we are rapidly losing the position in their confidence which we should occupy. But, fortunately, while psychologic development has been progressing, conservative scientific men have been studying its meaning and its processes, and a great amount of knowledge has been accumulated, so that what was dark, uncertain and mysterious twenty-five years ago can now be scientifically discussed.

In order to recover the lost ground, we must assume the office of the investigator and analyzer of every element that enters into the cause, course and termination of disease. We must learn the sources and action of every force that plays a part in the preservation of health.

Do not imagine that I would by one jot or tittle detract from the importance of the work that our men have been doing in other departments. The advance of learning in anatomy and physiology in health and disease is marked, and, above all, the growth of the knowledge of the causation and prevention of disease has in the last few years been phenomenal. Nor would I in any way reflect on the ordinary medical and surgical treatment of disease. This is all good, but more is required of us. We must not only know the machine and its disorders, but we must also understand, as far as possible, the power and energy that propels the machine, and to do this we must go thoroughly into physiologic psychology and psychologic physiology, as well as into pure psychology, which last I believe to be a true science.

So much for the importance of our subject.

Science and discovery have worked revolutions in knowledge during the past fifty years, and we must not fear again to venture on new ground in our investigations.

No one of the many theories devised to explain the action of the mind in controlling bodily conditions has received general acceptance. In taking a working hypothesis, we do so, therefore, fully realizing that it is subject to amendment, as knowledge increases.

The radical change that is taking place in scientific thought was well illustrated at the meeting of the British Society at Dublin during the past summer. Dr. J. S. Haldane of Oxford University, president of the section on physiology, read a paper on "The Relation of Physiology to Physics and Chemistry.[2] In it he states his opinion that the mechanical theory of life has not only failed, but retarded the progress of science, and that the study of the phenomena of life belongs to the department of biology and philosophy. Francis Darwin (son of Charles Darwin), in the Presidential Address,[3] goes deeply into the discussion of the habits, memory and other qualities in plants, which we ordinarily classify as characteristic of intelligence. When vegetable cells manifest these qualities and powers, it is not difficult for us to surmise that the individual cells in our own make-up possess, to a certain extent, at least, the same characteristics: each cell exercising its particular function and duty with a degree of independence within its sphere of action, but still in all that it does, being under the direction and control of cells higher up in the functional scale. Thus, step by step, we go upward, until an ultimate central and always active control is reached.

Is it not logical to suppose that as our bodies develop from the original parent cell, each of the offspring of this cell inherits some of its individuality, and that as differentiation takes place this individuality is not lost, though function and structure be modified that each may fill its special place in the great community of cells which go to make up the whole? But, in order to bring about the necessary cooperation and coordination, the closest communication must be, from the first, preserved between the individuals, so each must be kept under the direct controlling influence of a higher delegated direction.

And so the body develops in all its parts—we must not stop here for details, but we may imagine the intelligent action displayed by each cell, the wonderful cooperation and coordination. There must be zone beyond zone of directing intelligence, each in its sphere guiding all below it, until, step by step, the whole is brought into perfect unison. There must be a controlling relationship between every separate cell in every distinct area of the whole body as development is corresponding elsewhere. To take a simple illustration, we find the cells of the toe-nail systematically arranging themselves; they must have a local directing intelligence. Again a higher intelligence directs the symmetry of the two corresponding nails, and probably a higher intelligence still compels the relative proportion of the toe-nail to, let us say, the eyelid; for we do not have a giant's eyelid and a pigmy's toe-nail in the same community.

These superimposed centers are developed, not to give power and function to the original cells, but to enable those cells to perform their duties adequately, with necessary system and cooperation. In other words, the function and power of the higher centers is delegated to them from what we may term the primary cells.

Have we not here a suggestion of Fechner's theory of the universe being but a succession of enveloping spheres of intelligence?

Or can we criticize that great apostle of pure materialism, Haeckel, for introducing and using the term "cell soul," with all that that term conveys?

Can one consider these things and doubt that an intelligent directed energy is in constant action in every cell in the whole body? I wish we had another term than "intelligence" to describe this energizing function. Intelligence is so apt to be confused with consciousness, on the one hand, and with instinct, on the other. Consciousness seems to be an entirely distinct quality or function of the mind while instinct is a term applied to

2. Brit. Med. Jour., Sept. 12, 1908, p. 693.

3. Brit. Med. Jour., Sept. 12, 1908, p. 751.

qualities which mark the lower phenomena of intelligence, but which, as I understand them, so gradually merge into definite intelligence that no line of demarcation exists, and so I use the word "intelligence" for all those qualities which show perception, discrimination and determination.[4]

And so we go up from one directing and energizing zone to another, until we reach the higher centers in the brain, but so gradual is the advance that we do not lose the sense of individual power and intelligence in the cell from which we started.

And if this individuality is a necessary element in the growth and development of the body, it is just as much so for the maintenance of the body through its whole existence. We must then realize that, while every cell in the body is to a degree an individual, still every cell is under the controlling influence, step by step, of higher cells, until the highest physiologic centers of the brain are reached, and that here a constant controlling energy is exercised which reaches to every individual cell.

We are all too familiar with physiology to necessitate my giving illustrations of these phenomena. The example of intelligent directed action in ordinary adult life that comes at once to one's mind is, of course, the action of the white blood corpuscles in inflammation. Here we have action so elaborate and so complex that it seems to approach a high order of intelligence.

We are apt to confuse our minds by falling back on the term "reflex." Reflex acts are in all cases manifestations of a degree of intelligence. The efferent impulse is entirely different in its nature, force and function from the afferent impulse, and these qualities of the efferent impulse are modified in each case by many conditions of environment.

And now having reached the high controlling centers which are in constant action, we are very close to consciousness.

One of the first facts we have to learn in psychology is that mind, consciousness, and intelligence are not synonymous terms. Our mind is in constant action; part of it, at least, is manifested in the constant intelligent energy of control of which I have just spoken. In this way the mind reaches every cell of the whole body and directly dominates it.

The organs of sense are the means by which impressions from without reach the higher controlling centers, and under the influences of these impressions we can see the controlling intelligent influence of the mind on our cells in a thousand ways. This is sometimes accompanied by consciousness, but this is not the rule.

I must not stop to give illustrations, for they are familiar to every student in physiology and medicine.

The ordinary reflexes, so-called, do not depend on consciousness. Acts which we can control by our consciousness we call volitional, but most acts that can be consciously controlled may also be performed without consciousness. Acts that the mind habitually performs, outside the influence of consciousness, we term involuntary.

Thus the control of nearly all the cells of the body by the higher centers is being constantly exercised, but this exercise is habitually involuntary. Hence, nearly all physiologic functions, such as the affairs of circulation, nutrition, secretion, excretion, digestion, etc., etc., are classed as involuntary acts.

And now we come to the all-important question, Can acts, habitually involuntary, in any way be controlled through the conscious mind? In other words, can these physiologic offices of the body be in any way influenced by conscious volition, that is, by the will?

This question may simply involve habit—we may from disuse have forgotten how to use this power—or it may be evolutional. Is a new power approaching in the developing consciousness of higher intelligence?

As the disturbance of physiologic function is the important element in the causation of disease, and the restoration of function may often restore health; indeed, as resistance to infection, immunity, etc., are produced by the functional secretions of certain cells, we realize at once the importance of this question of the control of cell functions by the will. Indeed, on this question "hang all the law and the prophets" of psychologic medicine.

And now we will turn and approach this question from another standpoint.

From Professor William James, of all thinkers and writers on these subjects, I myself have derived the most guidance. He stands to me as an intellectual giant, above prejudice and preconceived notion, weighing each new fact as it presents, and giving it its proper significance in the storehouse of our little knowledge. He is, as I suppose you all know, a graduate in medicine from Harvard, and so we can claim him as of ourselves, but his great knowledge of philosophy and psychology have given him a higher and broader point of view than most of us can obtain, and he can easily see over the stumbling-blocks that seemed insurmountable to me. To me it is now incomprehensibe to conceive why I was ever allowed to practice medicine without some knowledge of philosophy, as well as psychology. I supposed them a mystifying labyrinth of confusing and unprovable theories, while if philosophy is anything it is the science of the conformation of knowledge, and places each science in its proper place in relation to each other specialty. It is the balance-wheel of acquired knowledge, the educator of scientific judgment.

But to return to Professor James: In his presidential address[5] to the American Philosophical Association at Columbia College, Dec. 28, 1906, on the "Energies of Men," he comes nearer giving a direct affirmative answer to our question than I find in any short article that has come under my notice.

In this article he calls attention to the fact that in every one there are latent powers which, when aroused under extraordinary stimuli, enable one to do and to suffer what would have been thought beyond all possibility.

After many illustrations in the ordinary affairs of life, he comes to our important question. He says:

> There seems no doubt that we are each and all of us to some extent victims of habit-neurosis. We have to admit the wider potential range and the habitually narrow actual use. We live subject to inhibition by degrees of fatigue which we have come only by habit to obey. Most of us may learn to push the barrier further off and to live in perfect comfort on much higher levels of power.

4. Since this was written, Alfred Russell Wallace has published in the *Fortnightly Review*, March, 1909, page 434, this statement: "Now even the extreme monists, such as Haeckel, are driven to the supposition that every ultimate cell is a conscious, intelligent individual that knows where to go and goes there." See also the (New York) *Independent*, March 4, 1909, page 457, and the *American Review of Reviews*, April, 1909, page 485

5. Phil. Rev., January, 1907, xvi, 1.

And again:

The normal opener of deeper and deeper levels of energy is the will. The difficulty is to use it, to make the effort which the word "volition" implies.

He then discusses the various processes by which the will may be developed in this power of control, and especially by methodical ascetic discipline, such as that of the Hindu Hatha Yogi system. And here he takes a case which is so pertinent to our question that I shall take the liberty of using it for our instruction:

A European friend of his, a man of the highest literary and scientific attainments, is greatly hampered in his work by a disordered nervous system manifesting itself in recurring attacks of great prostration. After exhausting the resources of ordinary medicine, he entered on the discipline of Hatha Yogi.

After persistent application, in spite of relapse, success came, and he found his mind and his body would obey his will, "like a wild horse tamed." A short four months of this training brought this man to an entirely new realization of life and its powers. Fourteen months after the beginning of the course, Dr. James says of him (p. 14):

There is in fact no doubt that profound modification has occurred in the running of his mental machinery. The gearing has changed and his will is available, otherwise than it was, available without any new ideas, beliefs or emotions so far as I can make out, having been implanted in him. He is simply more balanced where he was more unbalanced.

This condition continued, and in answer to Dr. James' question as to where the virtue lay in these exercises, he wrote:

The Yogi exercises are nothing else than a methodical way of increasing our will. . . .

I am sure that everybody who is able to concentrate thought and will and to eliminate superfluous emotion, sooner or later becomes a master of his body and can eliminate every kind of illness—this is the truth at the bottom of all mind cures—our thoughts have a plastic power over our body.

Now, this case is not unique, or even uncommon in its results; indeed, it is limited in its application, for in it we have no direct illustration of the modification of organic tissue. But I use it because here we have a highly developed mind capable of analyzing and explaining the steps by which these results are brought about.

We see the same results produced by an endless variety of agents. He who is awake and unprejudiced can see them about him all the time. Thus, we see instances, under the practice of the many scientific and unscientific, religious and emotional cults, under the many extraordinary 'pathies, and all sorts of philosophical and nonsensical theories. The results vary in different cases; sometimes this power of concentration and self-control is developed only after long systematic training; sometimes, to the receptive, it comes so suddenly that it seems to the uninitiated almost miraculous in its results.

If we study these results in conjunction with the cause apparently producing them, we soon find that the objective idea received and acted on by the subject is of secondary importance. The key to it all is the subjective condition of the mind acted on; or, expressed simply, it depends on the will of the subject.

Admit for a moment the hypothesis that the mind has the power of exercising direct volitional control over the physiologic activities of the body, and it is all simple.

All so-called "faith-healing" comes, then, to be simply a volitional act, and we soon come to see that faith is the sure expectant knowledge that conditions we look for will come about.

I doubt if any one who is capable of analyzing these cases will dispute that they are actual experiences and so must admit that the physiologic activities are, under certain conditions, frequently controlled by the will of the subject.

And now what are these conditions that enable one to be receptive of the idea of the power of the will? for if I understand the will aright the realization of its power will certainly bring about this control.

No two bodies are the same in energy and habit of action, and our mental attitude and habits vary in infinitely greater degree.

It is doubtful if any idea can find a foothold in an unwilling mind, and if this be so "the will to believe" is the first essential condition.

In the majority of minds, uncertainty and a lack of self-reliance are so constant a habit that in order to receive a new idea they must have a tangible material fact to which to attach the idea. Hence many will exercise their power quickly if they have the idea that a certain definite material or certain particular act will produce a certain definite result. Here we see, as instances, the result of acts of faith, of acts of discipline, the results obtained by many medical treatments, and by mechanical and chemical appliances.

A concentration of attention on an idea helps the will to act on it, and if we can develop that degree of concentration which enables us to shut off all other ideas, especially those conflicting with it, and to render the attention practically passive, we are approaching ideal conditions.

No man stands alone. We are constantly imparting knowledge to each other. We look to all about us for ideas and enlightenment, and if we are willing to give dissociated, passive attention to a communicated idea from one we trust, the reception and adoption of that idea is very simple and direct; indeed, we often find that our will has put the idea into action through the deeper zones of intelligence before our consciousness even realizes its import.

No idea contrary to the will of the subject will find acceptance. The will has its individual characteristics, can be cultivated, and often, in time, changed, but still it is the will and the will of the subject is, I believe, the sole agent of action.

When ideas are thus implanted on an expectant and receptive mind, we speak of it as direct suggestion. I use the term "indirect suggestion" of those cases in which the attention is placed on some objective idea or agent in order to arouse the will to action. Often by fixing the attention on an idea without objective aid, we can bring the will to exercise direct personal control to a phenomenal degree. This, of course, is called self-suggestion, or autosuggestion.

As the attention becomes dissociated and passive, the mind of the subject becomes more and more susceptible to suggestion, and we often find a degree of power and self-control developed that seems in the ordinary commerce of life incomprehensible.

Deeper and deeper states of dissociation can be discovered and exploited, but these are seldom developed in medical psychology, and we need not here even discuss them.

It thus seems that the will may be excited to this controlling activity by many different processes. As minds differ, so results may be produced by different methods. What succeeds with one may entirely fail with another, and the reverse.

While I am inclined to believe that there is no mind that can not be aroused by some process, there is a wonderful difference in the facility by which this may be done. Investigators have not yet been able to give a basis of classification or any guide by which susceptibility may be determined, except by individual experience. Everything being equal, however, the higher in the scale of intelligence the more easily can concentration and the action of the will be aroused. On the other hand, the opposing action is the will itself, especially in the egotist who knows it all, and knows that he knows it.

We are all constantly using suggestion in some form in every phase of every-day life. Indirect suggestion is the common rule, but when we understand what we are doing, and desire to use suggestion, it seems to me that it is in every way much more satisfactory to use the direct method. The power of self-control can, by direct suggestion, be developed and the mind built up to a condition of strength, power and self-reliance that is impossible by any other means.

To quote again from the same article of Professor James:

> Suggestion, especially under hypnosis, is now universally recognized as a means, especially successful in certain persons, of concentrating consciousness, and in others of influencing their body states. It throws into gear energies of imagination, of will, and of mental influence over physiological processes that usually lie dormant. . . . It is, in short, dynamogenic.

That is, I take it, that one is capable under certain conditions of controlling, through some zone of intelligence, the activity of the primary tissue cells.

222 West Colfax Avenue.

Clinical Notes

DEATH FROM HEMORRHAGE INTO THE SUPRARENAL BODIES IN A BOY OF EIGHTEEN*

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CHICAGO

The interesting and instructive case of hemorrhage into the suprarenals here reported occurred under the care of Dr. Byron Meacher, Portage, Wisconsin, to whom I am indebted for the specimen shown; namely, the right suprarenal body and the right kidney.

History.—Dr. Meacher's history of the case follows: The patient, a boy, aged 18, came to the hospital Jan. 26, 1909, for operation for a left inguinal hernia. The examination before the operation indicated that the patient was in perfect general health. The urine was normal; there was no history of any previous illness of any importance whatsoever except that four years ago he suffered from an infection of the left leg, recovery from which was complete. No record of tuberculosis could be obtained. Operation, January 27, under ether anesthesia, was uneventful. On the first day after the operation the pulse ranged from 100 to 140; it was normal on the second day, but from the third day, January 30, until February 10 it ranged from 100 to 140; after February 10 it was normal in rate but irregular until death, February 15. The pulse was feeble all this time. The temperature was normal until the third day after the operation, when it gradually rose to 102 F., where it remained for two days, gradually going down to normal during the next five days. The day before death the temperature was subnormal. The urine at no time showed anything abnormal. Immediately after the operation the patient complained of pain a little to the left of the median line under the costal margin and later of the same kind of a pain under the right costal margin. This pain persisted with some tenderness until death. On the fifth day the liver reached three fingers below the costal margin and was then quite tender, but on the ninth day it seemed to have returned to its normal size, the tenderness, however, persisted. Some food was taken every day and there were no disturbances of the bowels, but the patient vomited at different times after the fifth day, gradually losing weight. The wound healed by primary intention. On February 9 the mind seemed somewhat clouded and gradually became more so until death occurred, February 15.

Postmortem.—There was no abnormal discoloration of the skin. The wound in the left inguinal region was healed throughout. There was some emaciation. The heart, lungs, liver, intestines and urinary bladder were normal in appearance. The spleen seemed considerably enlarged. The kidneys also were normal. Both suprarenal bodies were much larger than normal, firmly adherent to the surrounding structures, and densely and uniformly infiltrated with blood so that their appearance was like that of a hemorrhagic infarct. The right suprarenal and the right kidney were submitted to me for further examination. The kidney is quite normal in size and appearance, the capsule free; the right suprarenal body is situated in the usual place at the upper pole of the kidney. It is much enlarged, being 5 cm. in width, 5.5 cm. in height and about 2 cm. in thickness, and so uniformly infiltrated with firmly clotted blood that only a very thin shell of the cortex is recognizable here and there. In places there is some infiltration of blood into the tissues about the suprarenal, but the main hemorrhage is wholly within this organ. On the cut surface it is quite smooth and red. The hemorrhagic infiltration is most intense in the medullary part and appears to be of about the same age everywhere, and microscopically the tissue is uniformly necrotic, no nuclei being demonstrable in the adrenal cells; some of the vessels in the central part are plugged with clots and the mouth of the suprarenal vein is closed by a firm, adherent and yellow thrombus which projects into the vena cava as a small smooth oblong body about 1 cm. in the longest dimension. A short and incomplete segment only of the vena cava accompanies the specimen so that nothing can be said of the condition in other vessels.

In the newborn and in infants and children, hemorrhage into the suprarenal bodies is relatively not uncommon. Recently it has been dealt with quite exhaustively by Arnaud,[1] Hamill[2] Dudgean,[3] and Litzenberg and White.[4] The literature also contains reports of instances of more or less extensive hemorrhage into the suprarenal bodies in adults, and in some the clinical and anatomical details are not much different from those in the present case. This is especially true of cases described by Mattei,[5] Arnaud, Pritchard,[6] Laignel-Lavastine,[7] Simmonds,[8] Munson,[9] Lissauer,[10] and Lavenson.[11] Lavenson gives an excellent and exhaustive

* Read before the Chicago Pathological Society, March 8, 1909.

1. Les hemorrhagies des capsules Surrénales. Arch de méd., 1900, new series, iv, 5.
2. Hemorrhages into the suprarenal capsule in still-born children and infants. Report of case showing rupture of the sac and escape of blood into the perirenal tissues and the peritoneal cavity. Arch. Pediat., N. Y., 1901, xviii, 81; also Tr. Am. Pediat. Soc., N. Y., 1900, xii, 176.
3. The etiology, pathology and diagnosis of adrenal hemorrhages. Am. Jour. Med. Sc., 1904, cxxvii, 134.
4. Hemorrhage of the adrenals in infants with report of two cases due to infection, THE JOURNAL A. M. A., 1908, li, 1964.
5. Richerche sull' anatomia normale e pathologica della cassule supra renali e considerazione sull' apoplessia di questi organi e sulla malattia dell' Addison. Sperimentale, 1863, xi, 3.
6. A case of hemorrhage into the suprarenal capsule of both sides. Lancet, 1890, i, 750.
7. Hemorrhagie des glandes surrénales. Bull et mém. Soc. anat. de Paris, 1901, lvii, 683.
8. Ueber Nebennierenblutungen. Virchow's Arch. f. Path. Anat., 1902, clxx, 242.
9. Suprarenal hemorrhage, an unusual cause of sudden death, THE JOURNAL A. M. A., 1907, xlix, 19.
10. Zur Kenntnis der Nebennierenblutungen. Virchow's Arch. f. Path. Anat., 1908, cxliii, 137.
11. Acute Insufficiency of the Suprarenals. Arch. Int. Med., 1908, ii, 62.

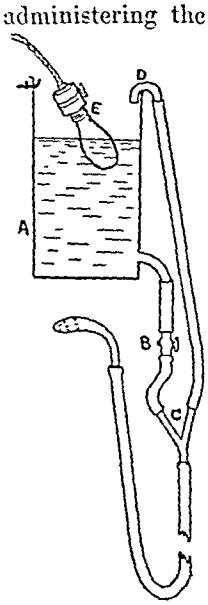
résumé. In some of the cases there is uncertainty as to whether the primary condition was hemorrhage or thrombosis of the principal veins, followed by hemorrhagic infarction. Lissauer believes that in cases studied by him the primary condition was thrombosis, and it seems to me not unlikely that such was the case in the present instance also. Suprarenal hemorrhage does not seem to have been diagnosed during life as yet, and, while there can be no doubt that bilateral suprarenal hemorrhage or hemorrhagic infarction, as in this case, may cause death after distinctive clinical disturbances, the observations so far recorded probably are not sufficient for the reconstruction of complete clinical picture or pictures, although Arnaud concludes his study of a large number of cases of all kinds of suprarenal hemorrhage by dividing them on the basis of symptomatology into three distinct clinical types, viz.: the asthenic type (suprarenal insufficiency), the peritoneal type (peritoneal irritation), and the nervous type. Lavenson adds two more groups; namely, cases of sudden death and cases, so far observed only in children, with purpuric eruptions or hemorrhages in the abdominal viscera.

PROCTOCLYSIS

A SIMPLE METHOD OF ADMINISTERING THE MURPHY TREATMENT

M. IVERSEN, M.D.
STOUGHTON, WIS.

While there are many devices and arrangements for administering the "Murphy treatment"—proctoclysis—most of them are either costly, clumsy or both. The method I have adopted, and which the accompanying illustration makes self-explanatory, has proved satisfactory. It has the added virtue of being easily carried out with material at hand in any hospital.



The parts consist of a fountain syringe or irrigator (A), a stopcock (B), a Y-shaped glass tube (C). From the latter a long rubber tube, ending in a hard rubber or glass tip, extends downward and another piece of tubing extends upward, ending in a U-shaped glass tube (D), the open end of which projects into the irrigator. I have found an 8-candle-power incandescent electric drop light (E) all that is necessary to maintain the temperature of the saline solution.

The stopcock is set so as to permit a flow of from 50 to 80 drops a minute. The vent tube leading from C to D permits the back flow of liquid or the passage of gas when the patient strains. The container should be from 4 to 14 inches above the level of the buttocks.

Therapeutics

PREVENTION OF TUBERCULOSIS

Dr. Noble P. Barnes, Washington, D. C., presented a paper at the International Congress on Tuberculosis (*Interstate Medical Journal*, January, 1909), which states so well the every-day methods of preventing this disease that it is time well spent to review them.

As unhealthy mucous membranes are probably generally the point of entrance into the system of the tubercle bacillus, Barnes emphasizes the necessity for keeping mucous membranes clean and healthy and with free drainage. He emphasizes the necessity for the complete and prompt removal of adenoid vegetations and enlarged tonsils in young children, and believes that the frequently performed tonsillotomy, while removing obstruction, leaves partially concealed or submerged diseased tonsillar tissue that not only harbors various organisms, but offers an open door for the tubercle bacillus. If it is decided that a tonsil is diseased a complete tonsillectomy should be done. Also, partial removal of adenoids does not relieve the congested turbinates, and proper nasal breathing and nasal mucosa drainage can not be established until the nasopharynx is cleared.

The nose itself should be made as free of bony obstructions and mucous membrane hypertrophies as deemed necessary for the free passage of air. If the mucosa is thickened, the use of mild alkaline antiseptic solutions followed by mentholated pure petroleum oil will aid in causing it to become healthy. In simple catarrhal conditions of the larynx and upper bronchial tubes, the inhalation of some mild aromatic antiseptic oil solution is of value.

Barnes believes that the rising toilet of all individuals who possess sensitive mucous membranes, and of those who inhale city dust, should include the employment of a non-irritating nasal douche, and a cold water gargle. "A free change of air in the lungs is next in order, the method depending on the physicial condition, and lastly inhalation for from five to ten minutes of mentholated aromatic oils."

From such a morning toilet of the nose and throat, mucus that may have collected during the night is washed off and expelled, the appetite for breakfast is improved, and the mucous membrane is prepared to counteract the ill effect of the dust and bacteria that must of necessity be inhaled during the day.

If the mucous membrane of the nose and throat is unhealthy, Barnes suggests, besides small doses of iron, small doses of iodid. This is certainly good treatment, provided the dose of iodid is very small, perhaps not more than 0.03 to 0.05 gram (or ½ to 1 grain) three times a day.

If a tuberculous process is going on in the lung, Barnes advises against respiratory exercises as tending to prevent the normal healing of the part. This is certainly good advice, as either the exercise is often carelessly ordered by the physician, or the patient or the patient's family, through the reading of popular articles, begins deep breathing at a time when it is positively contraindicated. Later, when a lung has thoroughly healed, graduated respiratory exercises are advantageous. Barnes suggests the following precautions in lung gymnastics, viz.: never expand the chest beyond the degree of comfort for fear of tearing open old wounds or rupturing air cells. 2. The air should be expelled through the nose instead of through the mouth or puckered lips as taught by most teachers of physical culture, because the turbinates are cooled by inhalation, and warmed by exhalation, and the dust caught on the nasal hair and mucous membrane will be forced out instead of being drawn further in."

The mucous membrane of the digestive tract becomes second in importance as a route of tuberculous invasion

in infants and children, and besides the frequent swallowing of human tubercle bacilli in contaminated food, and from putting into the mouth unclean hands and toys, it seems to be a proved fact that bovine tubercle bacillus is pathogenic to children. Besides the necessity for pure, clean, and non-infected food for infants, a primary necessity in this prevention of digestive infection is to keep the things the child puts in its mouth clean, and Barnes believes "the abominable pacifier, which is first put into the nurse's mouth, then rolls around on the floor, and then finally into the baby's mouth, is pernicious and a germ carrier, to say nothing of the deformities of the face and mouth that may occur from such constant sucking." Such "sucking quieters" of the babe create a habit for putting everything into his mouth when he gets a little older, to say nothing of sucking his own dirty fingers, putting pennies and other dirt-carrying things into his mouth, and later as a school child "chewing gum, sucking pencils, nibbling his nails, etc." All such sucking and chewing habits are best prevented by not allowing the babe to acquire such habits.

If the stomach mucous membrane is believed to be imperfect. Barnes believes that a little dilute hydrochloric acid may be needed to cause the stomach to be a proper germ-killing organ. The hydrochloric acid of the stomach not only has its local efficient action, but also stimulates the proper flow of the bile and the proper flow of the intestinal secretions.

Too great care of the child's teeth can not be given. Decayed teeth must be filled or extracted, and Barnes thinks it is many times a fallacy to believe that diseased teeth in children should be left *in situ* for fear of interfering with the proper eruption of the second teeth.

Tuberculous lymph bodies which can be reached Barnes would immediately remove. "Simple enlargements of the lymphatics in children can be reduced by diet, hygiene, and the administration of sodium salicylate and iodid of iron," but if they are tuberculous such treatment will not cause them to become normal, and they must be removed.

As many more eye inflammations in children are tuberculous than was once supposed, more careful attention to cleansing the eyelids in the morning and evening with non-irritating antiseptic lotions seems advisable.

Examination of the ears of infants who are in any way ill should be routine, and the ears should be carefully watched when the child has any kind of a cold, or cries from pain that can not be localized.

Besides the above measures in preventing local inflammations and the catching of cold from local infection, colds may be prevented by proper bathing. Barnes believes the hot bath for the child should be discontinued, and that "the tepid and gradually cooling shower accompanied by friction should be adopted; the temperature depending on the individual case and lowered only to the point of giving good reaction."

He sums up the measures for the prevention of colds and therefore the tendency to tuberculosis as, "proper hygiene of the skin and mucous surfaces; proper hygiene in diet, sleep, and living; avoiding fatigue, long hunger, mufflers, and chest protectors; avoiding dust and poorly ventilated places." No exercise in the open air can overcome the injuries to the child from sitting in foul-aired schoolrooms or sleeping in close apartments, nor can fresh air and good food overcome disease while such wrong living is continued.

New and Nonofficial Remedies

Since the publication of the book "New and Nonofficial Remedies, 1909," the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association. Their acceptance has been based largely on evidence supplied by the manufacturer or his agent and in part on investigation made by or under the direction of the Council. Criticisms and corrections to aid in the revision of the matter before publication in the book are asked for.

The Council desires physicians to understand that the acceptance of an article does not necessarily mean a recommendation, but that so far as known it complies with the rules adopted by the Council.

W. A. PUCKNER, Secretary.

(*Continued from page 1835*)

ORGANS OF ANIMALS

The discovery of the importance of internal secretions has led to extensive clinical trials with preparations of the so-called ductless glands, and other tissues which elaborate, or are supposed to elaborate such internal secretions. Two of these, the thyroid and suprarenal glands, have given decisive therapeutic results and have become official in the Pharmacopeia; preparations of the active principle of the suprarenal are described in this book under the heading of "Epinephrin." The other organ products are scarcely beyond the experimental stage, and may therefore be described together. Their active principles have not been isolated, and they are most commonly used in the form of the powdered dried gland. The gross fat and connective tissue should be removed as completely as possible, and the drying should be conducted at a relatively low temperature. The powder is frequently compressed into tablets. It is recommended that the strength of these should be stated in terms of the dried gland. Since there are no tests for the quality, or even identity, of these powdered products, the physician, unless he can himself supervise their preparation, is forced to rely on the general reputation of the manufacturer.

After the description of each gland a list of such preparations as have been submitted to the Council, and which are being marketed in an unobjectionable manner, is given. For the reasons stated, however, the Council disclaims any responsibility for their quality or identity.

Pituitary Gland

The removal of this body in animals is followed by symptoms of motor disturbances, depression, emaciation, and rapid death. The infundibular portion of the gland causes, when injected intravenously, a rise of blood pressure and slows but strengthens the action of the heart. It contains a substance soluble in water, and not destroyed by boiling, which is stated to cause dilation of the renal vessels and a marked increase in the secretion of urine. The gland has been found to be abnormal in many cases of acromegaly and so is believed to have an internal secretion acting on the growth of bones. The anterior lobe is claimed to have properties similar to those of thyroid extract.

The drug has a doubtful effect on the circulation when given by the mouth, but the infundibular portion may be useful in cardiac debility. An extract of this part of the gland has been recommended as a diuretic. The results of the use of the gland in acromegaly are uncertain, but the output of phosphates is increased. It may be given at the first symptom of debility or functional disturbances.

DESICCATED PITUITARY SUBSTANCE (ANTERIOR LOBE)—Armour.—The anterior lobe from the pituitary of the ox, separated, dried and powdered without the addition of preservative or diluent.

A light grayish yellow powder, having a slight peculiar odor. Partly soluble in water.

One part represents approximately 4.5 parts of the fresh substance. On incineration, it should yield not more than 6.5 per cent. ash.

Action and Uses.—See pituitary gland above.

Dosage.—0.05 to 0.20 Gm. (1 to 4 grains) in powder or tablet.

Manufactured by Armour & Co., Chicago.

DESICCATED PITUITARY SUBSTANCE (POSTERIOR LOBE)—Armour.—The posterior lobe from the pituitary of the ox, separated, dried and powdered without the addition of preservative or diluent.

A light grayish yellow powder having a slight peculiar odor. Partly soluble in water.

One part represents approximately 4.5 parts of the fresh substance. On incineration, it should yield not more than 6.2 per cent. of ash.

Action and Uses.—See pituitary gland.

Dosage.—0.05 to 0.20 Gm. (1 to 4 grains) in powder or tablet.

Manufactured by Armour & Co., Chicago.

Thymus Gland

Little is known as to the functions of the thymus, but it is believed to have an important relation to growth. There also seems to be some relation between the thymus and thyroid, for the former is frequently abnormal in diseases involving the latter (exophthalmic goiter).

The use of thymus is purely empirical. It has been recommended in the treatment of exophthalmic goiter, rickets, tuberculosis, hemophilia, and infantile marasmus and atrophy; its use in the latter conditions is said to be the most promising. It is claimed to exert a somewhat favorable effect in certain cases of cancer.

Mammary Gland

The extracts of the mammary gland are said to have an effect upon the uterus. They have been used in the treatment of profuse and painful menstruation and of uterine and ovarian tumors, but the beneficial results reported can hardly be accepted until confirmed by further observations.

Parotid Gland

Indications and suggested uses are similar to those for the mammary and ovary; it has been recommended in artificial menopause, intermenstrual pain and other conditions in which the ovary or corpus luteum are used.

Parathyroid Gland

The parathyroid gland, even in small doses, has a pronounced action on the course of the tetany resulting from the removal of or injury to the parathyroid glands. Its use checks the convulsions and removes the feeling of fear, the nausea and diarrhea and has undoubtedly at times greatly prolonged life or saved it while the injured parathyroid glands regained their functions. The fresh gland seems to be more active than the dried commercial preparation.

The drug has been used most successfully in tetany following removal of the parathyroids; its use in idiopathic and other non-operative forms of tetany has been less successful.

DESICCATED PARATHYROID GLAND—Armour.—Desiccated Parathyroid Gland—Armour, consists of the exterior parathyroids of the ox freed from fat, cleaned, dried and powdered, without the addition of preservative or diluent.

A light yellow powder, having a peculiar odor. Partly soluble in water.

One part represents approximately six parts of the fresh tissue. On incineration it should yield not more than 7 per cent. ash. It contains very small amounts of organically combined iodine.

Action and Uses.—See parathyroid gland.

Dosage.—0.006 Gm. (1/10 grain) four times a day.

Manufactured by Armour & Co., Chicago.

Testicle

Subcutaneous injections of testicular extracts were claimed to increase muscular energy from 10 to 20 per cent. Oxidation is somewhat increased and extracts of the gland may be used in obesity, but the results are uncertain. It has also been recommended in prostatic hypertrophy and many other conditions.

Spleen

Spleen has been used empirically in anemia, chlorosis, myxedema and various other diseases.

Ovary

The ovaries produce internal secretions which are necessary for the proper functioning of the uterus and which also have obscure effects on metabolism and the nervous system. Diminution or cessation of the activity of the ovaries (as at menopause, natural or artificial) often leads to a variety of nervous symptoms; irregularities in their activities seems to be sometimes accompanied by dysmenorrhea. Ovarian substance has been administered, often with apparently good results, for the relief of symptoms following the natural or artificial menopause and in dysmenorrhea, intermenstrual pain, etc.

Corpus Luteum

It is generally recognized that one or more of the most important of the internal secretions of the ovaries originate in the corpora lutea and the latter have been tried recently to a considerable extent in some of the classes of cases in which the entire gland is used. Thus, it is stated that in cases of artificial menopause, following operation, the use of the dried corpus luteum has been followed by great improvement. It may be given in the form of tablets, each of which is composed of a dried corpus luteum, obtained from a pregnant animal, usually a pig; or it may be given as "lutein" in twenty grain doses, three times a day, in some cases given continuously, in others periodically when the discomforts are greatest, and continued for about ten days at a time. The "lutein" is made by squeezing out the corpora lutea from the ovaries of the pig obtained at the slaughter house. The corpora are then rapidly dried, powdered, and compressed into tablets. These preparations are stated to frequently give good results when the ordinary ovarian extract made from the dried tissues of the ovary itself fails.

Corpus luteum has also been recommended in obesity associated with amenorrhea and in other conditions of "ovarian insufficiency" and in dysmenorrhea.

Drevet recommends that an extract of the corpora lutea, prepared as follows, be used: 1 kilo of finely divided corpora lutea are macerated in the cold for forty-eight hours with a mixture of 500 Cc. glycerine, 500 Cc. distilled water and 10 Cc. sulphuric acid. The liquid is filtered, neutralized with soda and the precipitate after being washed, is dissolved in acetic acid and again precipitated. The precipitate is then dried in vacuo. Dose of this extract, 0.04 Gm. to 0.08 Gm. (⅔ to 1⅓ grain) gradually increased to 0.12 Gm. (2 grains).

Red Bone Marrow

Red bone marrow consists largely (more than 90 per cent.) of fat. In new born animals a third or more of this fat consists of lecithin. The marrow of the bones of new-born animals contain iron (up to 1 per cent. or more) in various forms of organic combination. Both lecithin and iron decrease rapidly in the first weeks after birth. The commercial preparations contain very variable amounts of these constituents.

Action and Uses.—Red bone marrow is supposed to stimulate the formation of red blood corpuscles; whatever action it may have in this direction is probably due largely to the iron and lecithin which it contains.

It is recommended in simple and pernicious anemias.

EXTRACT OF RED BONE MARROW.—Extract of red bone marrow is a glycerin extract of the red marrow of bones. It contains about 2 per cent. of proteids, about 0.1 per cent. of lecithin and about 85 per cent. of glycerin.

It is a brownish liquid of an agreeable aromatic taste.

Actions and Uses.—This preparation is claimed to stimulate the formation of the red blood corpuscles.

It is recommended in simple and pernicious anemia.

Dosage.—4 to 8 Cc. (1 to 2 fluidrams) in water, milk or wine, three times a day.

Prepared by Armour & Co., Chicago.

(*To be continued.*)

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[For other information see second page following reading matter]

SATURDAY, JUNE 12, 1909

TUBERCULOSIS AND THE INDIAN

Mortality from tuberculosis is said to be far higher among the Indians than among the whites or even among the negroes.[1] It is generally believed, however, that there was no tuberculosis among the Indians previous to the coming of the white men. If it existed, it must have been exceedingly rare. Early histories of the aborigines describe such diseases as smallpox, cholera, filth diseases, insanity and rabies (from the bites of wolves and skunks), but say almost nothing of tuberculosis. As the whites came into contact with the Indians, this disease spread progressively from east to west.

The negative reason for the peculiar mortality from tuberculosis among the Indians is that this race, having come into contact with the disease very recently, has not had time to acquire immunity. For a similar reason, the negro race also has a high consumption mortality: it is very probable that there was no tuberculosis in Africa until the white man took it there. If the condition of the Indian and the negro, who have no racial immunity against tuberculosis, be compared with that of the Jew, who, through the forty centuries of his contact with tuberculosis, has established for himself a comparative immunity against the disease, it is seen that the Jewish race has not only a lower death rate from tuberculosis than the other two, but perhaps the lowest rate of any people.

The positive agencies for the dissemination of tuberculosis among the Indians are their personal and domestic habits. In the old days the nomadic Indians dwelt in more or less temporary abodes. These were well ventilated, since there were no means for making them air-tight. They were dirty enough; but by the time the stench from the filth around them became unbearable, it was time for the inhabitants to move on. They must sometimes have become infected; but the most permanent possessions of the Indians were of such perishable nature, compared to the belongings of civilized people, that diseases can not have been long perpetuated by them. Civilization, however, has provided the Indian with a durable and immovable house—generally a log cabin or rude hut—capable of being hermetically sealed against the air. Now he can shut out the fresh air, as he could not from his tepee. He is not sufficiently advanced to understand and apply the principles of disinfection; and his belongings, sheltered by four walls and a roof, are much less subject to Nature's process of purification by destruction.

When the virgin soil of the Indian's constitution is prepared by such habits as these and by liberal indulgence in the white man's fire-water, it is natural enough that the seed of tuberculosis should strike deep root there and bring forth abundant harvest of death.

The national government has not been wholly remiss in its attitude toward this matter. The Honorable F. E. Leupp,[2] Commissioner of Indian Affairs, and Prof. Ales Hrdlicka,[3] of the United States National Museum, have been active in the work of saving the Indian from extinction. The Lake Mohonk (N. Y.) Conferences also have been zealously agitating the matter. On the Cattaraugus Reservation, in New York State, an excellent dispensary, a well-equipped hospital, and the Thomas Indian School for Indian Children are maintained. What is being done for the Indian, however, is but a fraction of what should be done; and, if humane instincts will not prompt us to action, enlightened selfishness may furnish a motive. The Indian, in his intercourse with the whites to-day, is a constant disseminator of infection. Self-protection should, therefore, dictate such humane efforts as a dormant sense of justice may fail to inspire.

1. Eighth Ann. Rep., Bureau of the Census, Mortality Statistics, 1907.

2. Leupp, F. E.: Fighting Tuberculosis Among the Indians, Southern Workman, [illegible] 1908.

3. Hrdlicka, A.: [illegible] the Knowledge of Tuberculosis in the Indian, [illegible] November, 1908.

ANAPHYLAXIS

In a recent contribution to the study of anaphylaxis Biedl and Kraus[1] assert that, at least in dogs, the symptom-complex characteristic of the so-called anaphylactic shock is caused by a profound peripheral vasodilatation with a correspondingly grave fall in blood pressure. The other symptoms—vomiting, diarrhea, anuria, etc.—they regard as secondary to vasodilatation, which is regarded as the underlying primary process. They also found in the anaphylactic state a greatly decreased coagulability of the blood, as well as a marked fall in the number of polymorphonuclear leucocytes. They, furthermore, emphasize that results similar to those obtained by them in anaphylactic dogs follow the intravenous injection into normal dogs of commercial (Witte's) peptone; indeed, they assert that the results in the two cases are so much alike as to be practically identical. They even maintain that they have produced the so-called anti-anaphylaxis—the extinction of hypersensitiveness that follows survival of the acute symptoms produced by a second injection of the foreign serum in sensitized animals—quite as readily by the injection of peptone as by the injection of the foreign serum itself. Reversely, survival of the second injection of foreign serum is said to give a considerable measure of freedom from the poisonous effects of pep-

1. Wien. klin. Wchnschr., 1909, xxii, No. 11.

tone. Biedl and Kraus believe that such striking similarity of results is explainable only on the assumption of the presence in the two cases of substances physiologically identical. On the basis of their results they offer as a hypothetical explanation of the acute phenomena of anaphylaxis the formation in the sensitized animal of a vasodilating substance which becomes fully active on the introduction of a second dose of the foreign protein. Richet,[2] pioneer investigator in this field, who first introduced the word "anaphylaxis," in discussing the work of Biedl and Kraus, points out that he himself has shown, so long ago as 1902, that in anaphylactic shock there is an extreme and rapid fall in arterial pressure. This fall, however, he regarded and still regards as a secondary phenomenon due to cellular changes especially in the central nervous system. Richet holds that vasodilatation does not explain the vomiting, the diarrhea, the intense itching, the convulsions, the coma, and other symptoms characteristic of anaphylactic shock, especially since such symptoms are not a necessary consequence of even extreme vascular dilatation produced by other means. As to the incoagulability of the blood, his experience indicates that it is not at all constant in anaphylaxis. The toxic effect of Witte's peptone, which, it is well to remember, is a complex substance, after all is in so many ways dissimilar from the anaphylactic shock that the comparison does not help to explain the latter. Consequently, while no doubt exists as to the occurrence of vasodilatation in acute anaphylaxis, we have good reason to believe that the dilatation is a secondary phenomenon and that the primary process must be sought elsewhere than in the peripheral vasomotor apparatus.

2. Presse méd., 1909, xvii, 249.

THE BIOLOGIC STANDARDIZATION OF DIGITALIS

We publish elsewhere[1] in this issue an abstract of Bulletin No. 48 of the Hygienic Laboratory, Washington, D. C., entitled "The Physiological Standardization of Digitalis." It contains a good deal of material which is of great interest to the physician, because, in addition to giving a complete historical review of the various steps which have led up to biologic standardization of drugs, and an investigation into the accuracy of these methods, it also gives the results of the writers' examination of some of the proprietary preparations of digitalis which are on the market. Three of these nonpharmacopeial preparations compared very favorably with the official fluidextracts as the results given in the table on page 1939 show. With two more preparations, however, the findings were not as favorable, and they furnish examples of the vast difference between theory and fact, or perhaps it might be said between manufacturers' claims and actual conditions. One of these is claimed to have about double the effect on the system that an ordinary fluidextract possesses. In reality, when judged by its effect on animals, it appeared to be considerably weaker than the fluidextracts examined. It would seem also that the manufacturers themselves are not entirely convinced of the increased potency of their own preparation, for when it comes to doses they recommend from one-third to one minim *every hour,* an amount which is certainly not less than that of the official fluidextract, which is from one to two minims and usually given three or four times a day. More striking still were the results obtained with another preparation whose manufacturers claim that it is an aseptic permanent solution of the same strength as the tincture of the United States Pharmacopeia. Of three specimens examined, one seemed to be about half the strength of a tincture, while the other two bottles contained dark, muddy solutions not possessing the characteristic cardiac action of the digitalis series. One of these solutions when injected into the circulation lowered the blood pressure 23 per cent., giving a curve resembling that of the nitrites. The writers of the bulletin point out that this preparation is certainly not invariably a permanent solution, but may deteriorate and be positively harmful. When it is remembered that this preparation is especially recommended for hypodermic administration and that such a method is only employed where a rapid action is desired, the seriousness of the situation becomes more apparent. Such a preparation would be a menace to the "health of the sick."

An important need, emphasized by the appearance of this bulletin, is that of government supervision of the manufacture of preparations belonging to this series in the same way as the government now controls serum manufacture. Of the necessity of biologic standardization there can be no doubt, and while many pharmaceutical houses now maintain laboratories for this purpose there is no uniformity of method or of standard strength to which the preparations on the market under the same name must conform. Each maker has his own standard. The necessity of a uniform standard is great; the incorporation of such a standard in the next pharmacopeia would seem to offer no unsurmountable obstacles.

The appearance of a government bulletin of the scope of the present one and dealing with so valuable and much used a drug as digitalis is of considerable importance. It furnishes another indication of the widespread interest which is being taken in the production of pure drugs of a uniform strength.

1. Pharmacology Department, 1938.

SUBSTITUTES FOR THE WASSERMANN REACTION

Since the clinical value of Wassermann's complement-fixation test for syphilis has been pretty firmly established, numerous efforts[1] have been made to devise a substitute that is simple and more generally practicable. Most of these have depended on precipitate forma-

1. THE JOURNAL, April 3, 1909, p. 1113.

tion when syphilitic serums are treated with one of a variety of reagents. Thus Klausner, by diluting serum with distilled water, obtained with syphilitic serum a much more abundant precipitate than with other serums. Other observers have obtained similar results, using as a precipitant, dilute alcohol, solutions of lecithin, sodium taurocholate, or sodium glycocholate. But, unfortunately, none of these tests has proved constant enough to be of much value clinically.

A somewhat similar test has been reported by Noguchi,[2] who systematically examined the various constituents of spinal fluids and blood serums giving a positive Wassermann reaction, and found that the active substances (antibodies) were all precipitated with the euglobulin fraction of the proteins, on half saturation with ammonium sulphate. He further found that this fraction was constantly and materially increased in the syphilitic serums he examined, over that in normal and non-syphilitic serums, although there was not a quantitative relation between this increase and the intensity of the Wassermann reaction. Noguchi thinks that this increase in globulin is more constant than the Wassermann reaction, and that it bears a more definite relation to the activity of the disease. He also found an increase in the globulin in the spinal fluid in cases of tabes and general paresis.

His determinations were made by careful gravimetric methods, but he has devised a simple method for clinical use depending on the precipitation of the proteins in the spinal fluid by ten per cent. butyric acid solution. In positive cases a flocculent precipitate appears. In negative cases the fluid remains clear or becomes simply cloudy. He thinks the test is simpler and gives more definite results than Nonne's method of half saturating the fluid with ammonium sulphate. In a modified form he found the butyric acid test applicable to the blood serum.

The increase of globulin in the serum of syphilitics has been previously described. It is probably this which gives rise to the precipitate formed by dilution of the serums in Klausner's reaction. But an increase in globulin has been reported by other observers in the serum of some non-syphilitic conditions as well. Hence, until the test has been extensively tried, it can not be accepted as a reliable substitute for the Wassermann reaction. Better results might be expected from its application to spinal fluids.

WHISKEY AND THE PUBLIC HEALTH

The National Model License League, an organization which claims to be working for the purification of the existing liquor business, has been utilizing a statement made by a distinguished physician in an address to the commercial bodies of Kentucky in their recent convention. Speaking of health matters in that state, this physician is quoted as saying that for every one death produced by whiskey 1,000 deaths have been caused by the drinking of impure milk; that for every single death produced by the drinking of whiskey there have been 5,000 deaths from the drinking of contaminated water. He prefaced this statement by a request that it should not be misunderstood or misinterpreted, but from the use to which it is being put it has certainly been misinterpreted and the attempt is made to make it still more generally misunderstood. The public is apt to accept generalities of this kind without allowing for the qualifications which may have been in the mind of the speaker. Furthermore, there are very few diseases which have not contributory factors to their mortality, and even moderate drinking habits affect the prognosis of disorders from which a total abstainer is comparatively safe. As a lay journal says, the apparently impressive and prodigious figures are not worth a straw as an argument. Certainly not in the way they are being used here. The case is another instance of the same kind that has heretofore been noticed in The Journal in which remarks are used in senses entirely different from those intended by the speaker or writer.

DESIDERATA IN BRITISH LIBRARIES

Professor Karl Pearson, the eminent authority on biometrics, writes to *Nature* of May 6, inquiring where a number of medical journals, or certain years of such, can be found in England, stating that they have been looked for at the likely places and it is possible that they exist and have not been found. It seems a curious thing that London, with its library of the British Museum and all its other medical and general libraries, should lack copies of such widely quoted periodicals as *Lo Spallanzani*, the *Archiv f. Psychiatrie u. Nervenkrankheiten for the eighties*, the *International Medical Magazine*, etc. There seems also to be no library in London containing a complete set of university dissertations and degree theses. This last probably would be found to be the case also in many, if not all, of our American libraries, though there are opportunities occasionally of acquiring them at comparatively small cost. Many of these theses contain valuable matter or worked up summaries of our knowledge on their special subjects, and, while they are not absolutely necessary, they may be badly wanted at times. If any one occupied in research wishes to verify his references he needs to have all the conveniences for that kind of work, and, though bibliography in scientific papers may be easily overdone, the facilities for it should not have too many limitations.

THE FRENCH BIRTH RATE

It is said that for the first time in many years the French birth rate is showing an upward tendency. Of late years it has been decreasing or stationary. The increase is small, only about 9,000 for the first six months of 1908, but it was accompanied with a corresponding decrease in the death rate of over 60,000. This would seem to indicate that the conditions that have been troubling the French sociologists for the past few years are improving.

2. Jour. Exper. Med., January, 1909.

THE ATLANTIC CITY SESSION

We learn as we go to press that the Session at present under way at Atlantic City bids fair to be one of the most successful in years and, though not characterized by any spectacular features, there is every evidence of good solid scientific work. The familiarity of so many members of the Association with Atlantic City and its methods, together with that city's perfected system of arranging for conventions, all tend to make matters move smoothly. The attendance so far is very good and may possibly exceed that of two years ago, though this is not probable. On the first day the registration was over 900, reaching 2,480 on Tuesday. A large number of physicians were in Atlantic City in advance of the convention, having come from other society meetings in the East and also to attend other meetings held at Atlantic City in connection with the Association's convention. Medical men were much in evidence last Sunday both in the hotels of the city and on the Boardwalk. Among other societies meeting at Atlantic City this week are the American Association of Medical Milk Commissions, the American Gastro-Enterological Association, the American Proctologic Society, the American Urological Association and the National Conference of State Medical Examining and Licensing Boards. The House of Delegates transacted its regular business with dispatch. It is impossible to print the minutes of the meeting in this issue of THE JOURNAL, but nearly all of the proceedings will appear in the June 19 issue. The general meeting, which was held according to schedule, was well attended, as were also the Section meetings which commenced Tuesday afternoon. The medical profession of Atlantic City is entertaining the visiting physicians in its usual generous style. A notable feature of the present session is the scientific exhibit; all the space available has been taken, there being nearly fifty participants. Many new features have been introduced and the tuberculosis exhibit is particularly fine. In all, there seems every reason to believe that the 1909 session will be one of the most satisfactory ever held.

Medical News

ALABAMA

Commencement Exercises.—On April 30, the annual commencement exercises of the Medical Department of the University of Alabama were held in Mobile, and a class of 29 was graduated. The address of the evening was given by Hon. John McDuffie, Monroeville, and John W. Abercrombie, president of the university, presented the diplomas.

Personal.—Dr. Samuel W. Welch, Talladega, has been elected a member of the State Board of Medical Examiners, vice Dr. Edward H. Sholl, Birmingham.——Dr. J. E. Shirley has been appointed resident physician of the Mobile City Hospital; Dr. S. S. Stubbs of the Southern Infirmary; Dr. S. C. Spencer of the Providence Infirmary; Dr. R. R. Ivey of the Alabama State Hospital, Tuscaloosa, and Dr. J. R. Oswalt of St. Margaret's Hospital, Montgomery.——Dr. Felix H. Craddock has been elected municipal health officer of Sylacauga, and Dr. Braxton B. Pugh of Ironaton.——Dr. Rufus L. Milligan has been elected city physician of Montgomery, vice Dr. Gaston J. Greil.

ARKANSAS

Personal.—Dr. William E. McLain has been elected city physician of Argenta.——Dr. Joseph J. Moncrieff, Beebe, has been appointed chief medical examiner of the National Consolidated Casualty Company, Little Rock.

City Hospital for Little Rock.—The City Hospital district, Little Rock, is about to issue bonds for $50,000. The Medical Department of the University of Arkansas has given assurance that as soon as actual work on the hospital is begun it will erect a $35,000 building beside it. It is believed that the former offers of $10,000 from the university, and of two lots for a site will be renewed.

Society Meetings.—The Arkansas Medical Society, at its thirty-third annual meeting held in Pine Bluff May 18-21, elected the following officers: President, Dr. James H. Lenow, Little Rock; vice-presidents, Drs. Harvey D. Wood, Fayetteville; Elbert L. Watson, Newport, and Forrest A. Corn, Lonoke; secretary, Dr. Morgan Smith, Little Rock; treasurer, Dr. John S. Wood, Hot Springs; delegate to the American Medical Association, Dr. Eugene C. Hay, Hot Springs; alternates, Drs. Charles C. Price, Douglas, and Buchanan Hatchett, Fort Smith; councilors, first district—Dr. Horace R. McCarroll, Walnut Ridge; third district—Dr. Samuel A. Southall, Lonoke; fifth district—Dr. H. H. Nichuss, Wesson; seventh district—Dr. James C. Wallis, Arkadelphia; and ninth district—Dr. Creed T. Cannady, Cotter; State Board of Medical Examiners, third district—Drs. Frank B. Young, Springdale; Frank B. Kirby, Harrison, and James H. Beard, Gentry; second district—Drs. Fred T. Murphy, Brinkley; Lemuel E. Willis, Newport, and Gus A. Warren, Blackrock; sixth district—Drs. William S. Stewart, Pine Bluff; John L. Butler, Sheridan, and L. H. Barry, Hot Springs; seventh district—Drs. James C. Wallis, Arkadelphia; James T. Henry, Eagle Mills, and John A. Moore, Lisbon. Dr. C. P. Merriwether was selected as assistant editor of the journal of the society. The society decided to hold its 1910 meeting at Little Rock.——At the annual meeting of Carroll County Medical Society, held in Eureka Springs, May 12, the following officers were elected: President, Dr. John D. Jordan; vice-president, Dr. Russell G. Floyd; secretary, Dr. Henry Pace, and delegates to the state society, Dr. Floyd, all of Eureka Springs, and Dr. Charles A. George, Berryville.

COLORADO

State Board Members Appointed.—On May 17, the governor appointed the following members of the State Board of Medical Examiners: Drs. William W. Rowan, Ouray; Miller E. Preston, Denver, and David A. Strickler, Denver.

DELAWARE

Antituberculosis Society Elects Officers.—At the meeting of the directors of the Delaware Tuberculosis Society, held in Wilmington, May 4, the following officers were elected: Honorary president, Dr. John J. Black, Newcastle; vice-presidents, Drs. Harold L. Springer and Irvine M. Flinn, Wilmington; chairman of farm committee, Dr. Peter W. Tomlinson, Wilmington; admission and dismission committee, Drs. Joseph P. Wales, Albert Robin, Irvine M. Flinn, and Harold L. Springer, and chairman of educational committee, Dr. Albert Robin, all of Wilmington.

Governor Appoints Commission.—The governor has appointed the following medical members of the State Tuberculosis Commission: Drs. Peter W. Tomlinson, B. L. Lewis and W. F. Haynes, whose duty it is to arrange dispensaries in each county and make sanatorium arrangements for tuberculosis patients. He also appointed Drs. Harold L. Springer and Irvine M. Flinn, both of Wilmington, members of the State Board of Examiners of Graduate Nurses. He has also issued commissions to Drs. John J. Black, Newcastle, and James J. White, Dover, reappointed trustees of the State Hospital, Farnhurst.

ILLINOIS

Change of Proprietorship.—The interest of Dr. Everett H. Butterfield, Ottawa, in the Ottawa Tent Colony, has been sold to H. B. Pettit, superintendent of the institution, son of Dr. James W. Pettitt, and the entire control of the institution is now in the hands of Dr. Pettit and his son.

Personal.—Dr. George H. Stacy has resigned as pathologist to the Illinois Central Hospital for the Insane, Jacksonville, and will practice in that city.——Dr. Martha Hayward has been appointed superintendent of the Aurora City Hospital. ——Dr. Arthur P. Leipold, Moline, has been elected supreme medical examiner for the state of the Home Fraternal League. ——Dr. William H. Ludewig has been elected president of the Rock Island Board of Health.——Dr. Flint Bondurant has been appointed bacteriologist in the office of the State Board of Health, Springfield.

Smallpox in Illinois.—According to the report of the Public Health and Marine-Hospital Service on May 21, more than

one-eighth of all the smallpox in the United States between January 1 and June 1, was reported in Illinois. Of the total 9,960 cases in the country, 1,275 were reported from Illinois, but only 11 of these were found in Cook county.——Dr. Charles E. Crawford, Rockford, state health officer, is said to have found 72 cases of smallpox in Marengo in 41 families. The patients are all under quarantine, and the regulations are being well observed.

Chicago

Personal.—Dr. William A. Pusey has been elected president of the American Dermatological Association.——Dr. and Mrs. Bernard Fantus will sail for Europe June 15.

Commencements.—At the banquet which closed the commencement exercises of Rush Medical College, June 1, Dr. Henry B. Favill gave an address on "Medicine in the Scheme of Conservation." The president of the university announced that the college will start next year free from debt, which has been cleared away by the generosity of the members of the board of trustees. The degree of doctor of medicine was conferred on a class of 57. Fellowships in special subjects and prizes were conferred on 8 members of the class. The doctorate address was delivered by President Edward J. James of the University of Illinois.——The twenty-seventh annual commencement exercises of the College of Physicians and Surgeons, Chicago, the College of Medicine of the University of Illinois, were held June 5, when a class of 131 was graduated. The doctorate address was delivered by Dr. William E. Quine on "The Doctor and Religion."

INDIANA

April Sickness and Death.—During April, there were reported to the State Board of Health, 3,212 deaths, equivalent to an annual death rate of 14.3 per 1,000, or an 8 per cent. increase, as compared with April, 1908. There was also an increase in the morbidity of 10 per cent. Deaths under 1 year of age numbered 424, or 13.9 per cent. of the total deaths, and the deaths of individuals over 65 years of age were 1,044, or 33.3 per cent. of the total. Consumption caused 427 deaths, pneumonia 452, or 120 more than for the same month last year. There were 158 cases of typhoid fever reported in 24 counties, with 33 deaths, and 60 cases of diphtheria from 21 counties with 9 deaths. There were reported 176 deaths from violence, 8 of which were homicides and 31 suicides. The most prevalent disease of the month was tonsillitis.

Personal.—Dr. Jacob B. Casebeer, Auburn, went to Ann Arbor for operation May 25.——Dr. Edgar F. Kiser, superintendent of the City Dispensary, Indianapolis, has resigned.——Dr. Charles J. Overman has succeeded Dr. Edwin O. Harrold, resigned, as city health officer of Marion.——Drs. William F. Sharrer and William R. Quick have been appointed members of the board of health of Delphi.——Dr. Solomon G. Smelser, Shirley, has been appointed a member of the State Board of Medical Registration and Examination.——Drs. Charles P. Cook and Walter J. Leach, New Albany, have left for Europe.——Drs. J. H. William Meyer and Bo Carr Bowell have resigned as members of the LaPorte Board of Health.——Dr. Edward Linthicum, Evansville, was operated on in St. Luke's Hospital, Chicago, recently.——Dr. Harry N. Swezey has been made a member of the board of public works of Marion.——Dr. Jonas Stewart, Anderson, slipped and fell down a stairway May 15, sustaining severe injuries.——Dr. Calvin I. Fletcher, Indianapolis, has returned from Europe.

KENTUCKY

Railway Surgeons Meet.—The fifth annual meeting of the Kentucky State Railway Surgeons' Association was held in Newport May 26 and 27. The following officers were elected: President, Dr. John L. Phythian, Newport; vice-presidents, Drs. Charles G. Daugherty, Paris; Albert S. Brady, Greenup, and James B. Kinnaird, Lancaster, and treasurer, Dr. Clarence H. Vaught, Richmond. The association decided hereafter to publish its own journal, and to hold its next meeting at Ashland in May, 1910.

Personal.—Dr. Florence Meder, Louisville, has been promoted to second assistant physician at the Central Kentucky Hospital, Lakeland, vice Dr. John K. Wood, Bowling Green, resigned on account of ill health, and Dr. Samuel Young, Murray, has been named third assistant physician.——Dr. Frank P. Strickler, Elizabethtown, has been elected president, and Dr. Charles Z. Aud, Cecilian, secretary and health officer, of the Harden County Board of Health.——Dr. James W. Griffin, Lewisport, has been elected president and Dr. James W. Knox, Lewisport, re-elected health officer and secretary of the Board of Health of Hancock county.

LOUISIANA

Personal.—Dr. George Dock, New Orleans, sails this week for England and the continent. He will attend the International Medical Congress at Buda-Pest.——Dr. E. Dunbar Newell has moved from St. Joseph to Chattanooga, Tenn., where, with his brother, Dr. Edward T., he is in charge of the Newell & Newell Infirmary.——Dr. Irving Hardesty, professor and head of the department of anatomy in the University of California, has been appointed to a similar position in Tulane University, New Orleans.——Dr. Joseph A. Estopinal, New Orleans, secretary of the State Board of Health, has resigned to accept the position of special medical inspector in Havana. He has been succeeded by Dr. Edward S. Kelley.

MARYLAND

Presentation.—Dr. James S. Woodward, who for more than twenty years has been resident surgeon to the Maryland Steel Company, at Sparrows Point, near Baltimore, and who recently resigned, on May 27, was presented by his friends with a silver loving-cup, whose three handles bore the engraved words "Physician," "Neighbor," "Friend."

Charge Against Justice of the Peace.—Dr. Marshall L. Price, secretary of the State Board of Health, has filed with the governor charges against Justice of the Peace Hartle, Hagerstown, alleging that the justice dismissed the case of an undertaker of Williamsport who was accused of the violation of the law relating to burial permits, without hearing the witness for the state, and that he had conspired with a public school teacher, charged with permitting pupils not vaccinated to attend the school, thereby defeating the administration of justice. The governor has asked for a prompt explanation from the justice.

Baltimore

Commencement.—Maryland Medical College celebrated its eleventh annual commencement June 1, when degrees were conferred on a class of 31 by Dr. Harry Gross. The introductory address was made by Dr. Bernard P. Muse, and the address to the graduates was made by the secretary of state of Maryland, Hon. N. Winslow Williams.

Personal.—Dr. William F. Shellenberger of the resident staff of Johns Hopkins Hospital, was operated on for appendicitis May 25.——Dr. Henry H. Imhof was slightly injured in a street car collision, May 26.——Dr. Anna D. Schultz has been elected president of the Alumni Association of the Woman's Medical College.——Dr. J. Clagett Robertson was operated on at St. John's Hospital a few days ago.——Dr. Silas Baldwin was injured by a runaway horse, May 30.——Dr. D. C. Absher, who was operated on at University Hospital for appendicitis, May 18, has recovered.——Dr. J. T. Coughlin has been appointed chief resident physician of St. Joseph's Hospital, vice Dr. E. G. McFarland.——Drs. W. Preston Miller and William T. Watson sailed for Europe June 3.——Dr. Llewellys F. Barker has gone to Europe and Dr. Roland Whitridge to Spain for the summer.——Dr. William S. Thayer will visit Dr. William Osler in Oxford this summer.

MICHIGAN

Personal.—Dr. Oscar C. Breitenbach, Escanaba, has been removed from Wesley Hospital, Chicago, to Evanston, Ill., and his condition is much improved and speedy convalescence is anticipated.——Dr. John W. Bosman, Kalamazoo, has been appointed local surgeon for the Grand Trunk Railroad.——Dr. Clyde C. Slemons has been elected city bacteriologist of Grand Rapids.

April Mortality.—During April there were 3,394 deaths reported to the department of health, equivalent to an annual mortality of 15.5 per 1,000. Of these, 615 were of infants under 1 year of age; 217 of children from 1 to 5, inclusive, and 1,140 of individuals 65 years of age or over. Chief among death causes were pneumonia, 317; tuberculosis, 254; violence, 150; cancer, 139; influenza, 74; measles, 59; meningitis, 55; diarrhea and enteritis, 46; typhoid fever, 40; diphtheria, 38; whooping cough, 27, and scarlet fever, 16.

MISSOURI

Personal.—Dr. Thomas E. Graham has resigned as assistant physician at State Hospital No. 2, St. Joseph.——Dr. Frank B. Hiller, Kahoka, has been appointed a member of the State Board of Health, vice Dr. Robert H. Goodier, Hannibal, and Dr. Ernest F. Robinson, Kansas City, to succeed Dr. Walter S. Thompson, Armstrong.——Dr. John M. Bell has resigned as a member of the faculty of Ensworth Medical College, St.

Joseph.——Dr. Porter E. Williams, superintendent of State Hospital No. 1, Fulton, retired from that position June 8.

St. Louis

Memorial Meeting.—A memorial meeting was held by the St. Louis Medical Society, May 30, at which memorial addresses were delivered by Dr. Willard Bartlett on "Dr. Hugo A. Auler," by Dr. Albert H. Meisenbach on "Dr. Benno Bribach," and by Dr. Henry J. C. Sieving on "Dr. Hugo W. Bartscher," and by Dr. William M. Baker on "Dr. Michael P. Reynolds."

New Building for Medical School.—Dr. William H. Warren, dean of the Medical School of Washington University, announced May 26, at the annual banquet of the Alumni Association, that a $250,000 building is to be erected on the university campus for the use of students during the first two years of their medical course. On May 27, the annual commencement exercises were held, when the degree of M.D. was conferred by Chancellor David Franklin Houston of the University, on a class of 48.

NEW YORK

Commencement.—The annual commencement exercises of Albany Medical College were held May 18. The essayist was Dr. William H. Davidson, the address to the graduating class was given by Dr. Abraham Jacobi, New York City, and Rev. Charles A. Richmond, acting chancellor of Union University, conferred degrees on a class of 40.

New York City

Fire in Hospital.—In a fire which occurred in the children's ward of the King's County Hospital, Brooklyn, May 22, sixty crippled children were removed by physicians and nurses uninjured.

Laboratory for Inoculation Experimentation.—Plans have been filed for a laboratory to cost about $10,000, to be constructed on the roof of the College of Physicians and Surgeons for the purpose of inoculation experimentation.

Personal.—Dr. Louis L. Seaman returned from Africa, June 4.——Paul A. Lewis has been appointed associate in pathology, F. Peyton Rous, assistant in pathology, and Angelia M. Courtney, scholar in chemistry by the board of directors of the Rockefeller Institute for Medical Research.——A dinner was tendered by the sisters in charge of St. Mary's Hospital, Jamaica, May 27, to Drs. James J. Crawford, Albert L. Voltz, August G. Maron, and Hanford Pattengill, present and past internes of the hospital, and each of the guests of honor was presented with a physician's hand satchel.——Dr. and Mrs. John E. Weeks sailed for Europe May 28.

Buffalo

Commencement.—The annual commencement exercises of the University of Buffalo were held May 28. The principal address was delivered by Mr. Adelbert Moot.

Personal.—Drs. Lucien Howe and F. Park Lewis have returned from Naples.——Drs. James H. Carr and J. Walter Fitzgerald have started for Europe.——Dr. William G. Taylor has returned after a two months' vacation in Cuba and Mexico.

Hospital Dedicated.—The Harrington Hospital for Children of the Buffalo General Hospital was dedicated with appropriate ceremonies May 28. Charles W. Pardee, president of the General Hospital, presided and delivered the principal address. The building, which is a memorial to the late Dr. Devillo W. Harrington, is located on Goodrich street, directly back of the General Hospital. The building is constructed of buff brick and iron; is fire-proof, two stories in height, with a main building and two wings which enclose a court. The top floor of the building is to be devoted to the use of nursing infants, mothers, and young children. The main floor will be devoted entirely to medical and surgical wards, and rooms for older children, and the basement will be used for isolation cases and for observation of suspicious cases.

OREGON

New Hospital.—Multnomah county has secured possession of the site for the county hospital at Fourth and Hooker streets, Portland, and in a few weeks the building will be ready for occupancy. It will accommodate about 100 patients.

Elections.—At the annual meeting of the Portland City and County Medical Society, held in Portland, May 19, the following officers were elected: President, Dr. Alan W. Smith; vice-president, Dr. Alpha E. Rockey; secretary, Dr. George S. Whiteside; treasurer, Dr. Stuart H. Sheldon, and Board of councilors, Drs. Joseph A. Pettit, Ben Norden and Luther H. Hamilton. It was decided to continue the meetings through the summer months, and four additional vice-presidents were selected to preside when occasion required, namely, Drs. Noble W. Jones, Ferdinand H. Dammasch, Robert J. March, and Albert E. Mackey.——The annual meeting of the Southern Oregon Medical Association was held at Grass Pass May 11. Dr. Robert J. Conroy, Medford, was elected president; Dr. Beaver, Ashland, vice-president, and Dr. Alvane C. Seeley, Roseburg, secretary-treasurer.

PENNSYLVANIA

Philadelphia

Personal.—Drs. J. A. Bayard Kane and George W. Bailey sailed for Europe June 5.——Drs. Anna L. Bacon and Mary J. Rochelle were appointed probation officers of the Juvenile Court, June 4.——Dr. John W. Rhein, who was operated on in the Howard Hospital recently for appendicitis, is convalescing.——Dr. Henry W. Stelwagon entertained Dr. George Pernet of London, Eng., and the members of the American Dermatological Society at luncheon at his residence, June 3.——Dr. and Mrs. James A. Irwin sail from New York for Italy, June 12.——Dr. W. M. Late Coplin, director of the Jefferson College Hospital, was presented with a silver loving-cup by the members of the hospital staff, June 7.

Commencements.—The eighty-seventh annual commencement of Jefferson Medical College was held June 7. A class of 140 was graduated and the annual address was delivered by Col. William C. Gorgas, Medical Corps, U. S. Army, and president of the American Medical Association, who spoke on "Sanitation of the Isthmus of Panama." The degrees were conferred by the president, Hon William Potter.——The twenty-ninth annual commencement of the Medico-Chirurgical College was held June 5, when a class of 80 received diplomas and the annual address was delivered by the Hon. Chauncey M. Depew of New York. The degrees were conferred by the Hon. Henry F. Walton, president of the Board of Trustees.

RHODE ISLAND

State Society Meeting.—The ninety-eighth annual meeting of the Rhode Island Medical Society was held in Providence, June 1. The following officers were elected: President, Dr. Eugene Kingman, Providence; vice-presidents, Dr. Augustine A. Mann, Central Falls, and Dr. Frederick T. Rogers, Providence; secretary, Dr. Stephen A. Welch, Providence; treasurer, Dr. George S. Mathews, Providence; auditor, Dr. William H. Buffum, Providence; curator, Dr. William J. McCaw, Providence, and delegate to the American Medical Association for two years, Dr. John Champlin, Westerly.

VIRGINIA

Faculty Elects Officers.—At the annual meeting of the faculty of the Medical College of Virginia, Richmond, held May 29, Dr. William H. Taylor was re-elected chairman; Dr. Christopher Tompkins, dean, and Dr. Frank M. Reade, secretary.

Elections.—Members of the Alumni Society of the University College of Medicine, Richmond, elected the following officers, May 19: President, Dr. H. B. Mahood, Emporia; vice-presidents, Drs. Joseph N. Barney, Fredericksburg; Joseph B. Bailey, Clayville, and Wyatt S. Beazley, Richmond; secretary, Dr. McCaw Tompkins, Richmond; assistant secretary, Dr. Daniel T. Bailey, and treasurer, Dr. Frank H. Beadles.——The Virginia Conference on Charities and Corrections, at its meeting in Lynchburg, May 18, elected J. T. Mastin, Richmond, president; Dr. Lawrence T. Royster, Norfolk, vice-president, and Drs. William F. Drewry, Petersburg; Roy K. Flannagan, Charlottesville, and Ennion G. Williams, Richmond, members of the executive committee. Surgeon Charles B. Wertenbaker, Norfolk, P. H. and M.-H. Service, prepared a paper on "Practical Methods for the Suppression of Tuberculosis in Virginia," which was read by Dr. Ennion G. Williams in the absence of the writer. He advocated the formation of a state antituberculosis league with representatives, and that there be organized simultaneously in every city, town and village in the state a branch of the league in order that the work of suppression of tuberculosis may be started at once.——A postgraduate school for physicians was organized by the Augusta County Medical Society at Staunton, May 12, with the following officers: Dean, Dr. Marshall J. Payne; vice-dean, Dr. John B. Catlett, and recorder, Dr. Kenneth Bradford.——At the annual meeting of the University College General

Alumni Association in Richmond, May 17, the following officers were elected: President, Dr. George A. McAllister, and vice-presidents, Dr. C. T. Womack, Martinsville, of the dental department, and Miss Maude Lambert, Roanoke, of the pharmacy department.

GENERAL NEWS AND COMMENT

A Well-Merited Honor.—The honorary degree of doctor of science was conferred on Surgeon Rupert Blue, U. S. P. H. and M.-H. Service, by the University of Maryland, at its recent convocation, on account of the services rendered by Dr. Blue during the recent epidemic of bubonic plague in San Francisco.

Psychologists Meet.—At the sixty-fifth meeting of the American Medico-Psychological Association held in Atlantic City, June 1-4, the following officers were elected: President, Dr. William F. Drewry, Petersburg, Va.; vice-president, Dr. Charles W. Pilgrim, Poughkeepsie, N. Y.; and secretary and treasurer, Dr. Charles G. Wagner, Binghamton, N. Y.

Dermatologists Elect Officers.—At the annual meeting of the American Dermatological Society, held in Philadelphia, June 3-4, the following officers were elected: President, Dr. William A. Pusey, of Chicago; vice-president, Dr. Grover W. Wende, of Buffalo, N. Y., and secretary and treasurer, Dr. James McF. Winfield, of Brooklyn, N. Y. Dr. Alfred Fournier, of Paris, France, was admitted to honorary membership. The next meeting of the association will be held in Washington in 1910.

Academy Election.—At the annual meeting of the American Academy of Medicine, held in Atlantic City, June 7, the following officers were elected: President, Dr. James H. McBride, Pasadena, Cal.; vice-presidents, Drs. Philip Zenner, Cincinnati; W. Blair Stewart, Atlantic City; Ruth Webster Lathrop, Philadelphia, and Hanau W. Loeb, St. Louis, and secretary-treasurer, Dr. Charles McIntire, Easton, Pa. (reelected). Contract practice was discussed as a solution for the problem of securing medical care for wage-earners at a small cost.

Climatologic Meeting.—At the annual meeting of the American Climatological Association, held in Fortress Monroe, Va., June 4-5, the following officers were elected: Presidents, Dr. Edward R. Baldwin, Saranac Lake, N. Y.; vice-presidents, Drs. James M. Anders, Philadelphia, and H. Longstreet Taylor, St. Paul, Minn.; secretary-treasurer, Dr. Guy Hinsdale, Hot Springs, Va.; councilor, Dr. Charles E. Quimby, New York City; representative to the executive committee of the Congress of American Physicians and Surgeons, Dr. Roland G. Curtin, Philadelphia, and alternate, Dr. Thomas Darlington, New York City.

Surgeons' Annual Meeting.—The annual meeting of the American Surgical Association was held in Philadelphia June 3-5. The principal interest was centered in the symposium on "Thoracic Surgery," which was opened by a paper presented by Professor Friedrich, of Marburg, Germany. Professor Tuffier of Paris, France, who was to have read a paper in conjunction with Professor Friedrich, did not arrive. The following officers were elected: President, Dr. Rudolph Matas, New Orleans; vice-president, Drs. John M. T. Finney, Baltimore, and George H. Monks, Boston; secretary, Dr. Robert G. LeConte, Philadelphia; recorder, Dr. Richard H. Harte, Philadelphia, and treasurer, Dr. Charles A. Powers, Denver. The society will meet next year in Washington.

Conference of Charities and Corrections.—The National Conference of Charities and Corrections will be held in Buffalo, N. Y., June 14-16, inclusive. In connection with the conference, there will be exhibits by the Playground Association of America of model playgrounds; by the Committee on Children, who will illustrate the modern methods of work for dependent children; by the George Junior Republic, on what the boy can do; and by the Committee on Families and Neighborhoods on plans for removal of congestion in great cities. The following topics on the program are of special interest to the medical profession:

Industrial Insurance—Lee K. Frankel.
Statistics Relating to Children—Homer Folks.
Report of the Committee on Defectives.
Progress in the Care of the Insane—Frank B. Sanborn.
Care of the Criminal Insane—Dr. Thomas C. Fitzsimmons.
The Eastern New York Custodial Asylum—Franklin B. Kirkbride.
What is Being Done in the Psychological Study of the Feeble Minded—Dr. Henry H. Goddard.
Effects of Industry of Women and Children in the Stock Yards District—Miss Mary E. McDowell.
Statistics of Public Outdoor Relief—Dr. Thomas J. Riley.
After Care of Institution Children—Brother Barnabas.
Public Recreation—Dr. L. H. Gulick.
Sending Consumptives from Home—Rev. W. S. Friedman.
Means of Safeguarding the Sale of Narcotics—William Jay Schieffelin.
The Medical Supervision of Schools—Dr. George H. Leslie.
Press and Publicity in Child-caring Work, Public Health Work, etc.
The Food Supplies of Charitable and Semi-Charitable Institutions—Dr. Harvey W. Wiley.
Diet for Tuberculous Patients—Dr. Herbert Maxon King.
The Responsibilities and Opportunities of a Health Officer—Roy Smith Wallace.
The Coordinate Responsibilities of Boards of Health, Boards of Education and Park Boards in Relation to the Welfare of Children—Dr. Luther H. Gulick.
Responsibilities of Civic Authorities in Relation to Immigrants—Dr. Peter H. Bryce.

The Carroll Fund.—The following subscriptions have been received since the last report:

Medical officers of the army	$ 40.00
Illinois State Medical Society, Ottawa, Ill.	500.00
North Dakota Medical Assn., Casselton, N. D.	100.00
Adams County Medical Society, Natchez, Miss.	20.00
New York and New England Assoc. Railway Surgeons, Oswego, N. Y.	5.00
Dr. H. McM. Painter, New York City	10.00
Dr. H. A. L. Ryfkogel, San Francisco, Cal.	5.00
Dr. Harold Seidelin, Merida, Yucatan, Mexico (U. S. Cur.)	4.99
Dr. W. S. Gardner, Bronx, New York City	1.00
Dr. Hermann Grad, New York City	5.00
Dr. Calvin Gates Page, Boston, Mass.	2.00
Medical Society of the Borough of the Bronx, New York	25.00
Dr. H. S. Steensland, Syracuse, N. Y.	3.00
Louisiana State Medical Society	150.00
Calhoun County Medical Society, Battle Creek, Mich.	15.00
Dr. W. F. Grinstead, Ottawa, Ill.	50.00
Dr. Frank Billings, Ottawa, Ill.	25.00
Dr. J. F. Percy, Ottawa, Ill.	25.00
Dr. E. W. Weis, Ottawa, Ill.	5.00
Dr. Joseph L. Abt, Ottawa, Ill.	5.00
Dr. H. A. Pattison, Ottawa, Ill.	5.00
Dr. C. D. Pence, Ottawa, Ill.	5.00
Dr. G. W. Greene, Ottawa, Ill.	5.00
Dr. V. A. McClanahan, Ottawa, Ill.	1.00
Dr. J. P. Simpson, Ottawa, Ill.	1.00
	$1,012.99
Previously reported	4,155.65
	$5,168.64

The debt on the Carroll property to-day amounts to $7,150. The interest on the $5,000 mortgage ($125) will fall due June 15. There is on hand in bank to-day to pay this indebtedness $5,700.82, which leaves $1,449.18 to be raised. The profession of this country will certainly give this amount to save the home of the widow of James Carroll.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, May 22, 1909.

Reform of the Indian Medical Service

The vast native population of India has for many years been dependent for medical treatment almost entirely on the medical officers of the Indian army. Naturally, the strain of even the hospital treatment of serious disease—which is all that could be attempted—has been very great on this service. The government has at last decided that no further increase of its civil work can be allowed, and that it would be a great advantage to India if physicians would establish themselves there in private practice as in other parts of the empire without entering the army service. As usual, the problem how they are to be paid does not seem to have troubled the government. The Indian population is abjectly very poor and very few could afford even the most modest fees.

A Memorial to Harold Barnard

A committee composed of members of the staff of the London Hospital, has been formed to publish a memorial volume of their late colleague, Mr. Harold Barnard, whose death was announced a short time ago in THE JOURNAL. It is proposed to publish a memorial volume containing all his contributions to abdominal surgery, illustrated by drawings by two of his pupils—Dr. F. Wood Jones and Mr. S. Beale—who had been engaged by Barnard to make them from his specimens.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, May 27, 1909.

Insurance of the Physician Against Civil Professional Liability

The physician is always exposed to action at law for errors, real or pretended, committed in the course of medical treat-

ment or of a surgical operation. Recently, a woman made a complaint to the Parquet of the Department of the Seine, concerning the death of her son under chloroform anesthesia administered in a Paris hospital for an operation. The woman asserts that the chloroform was administered by an interne without the surveillance of the operating surgeon, and contends that this fact constitutes a grave fault. In course of law the woman will be able to bring a civil action and claim heavy damages. Proceedings of this kind have suggested to certain insurance companies, which are always seeking to extend their field, to offer physicians insurance against this civil liability. By means of a moderate premium this insurance will make it possible for the physician to protect himself from payment of damages, often very heavy; and, further, it will relieve him from the vexations and worry of a lawsuit. Whether these advantages are real or problematical, there is a question which appears much more important, namely, whether such insurance is not incompatible with the professional dignity of the physician; and moreover—an indication of the times!—in one of our medical journals, we read under the heading, "Notice to the Medical Profession," the following advertisement: "In consequence of an agreement between this journal and La Foncière, one of the oldest and most important insurance companies in France, our subscribers are gratuitously insured against their civil professional liability. By the sole fact of paying their subscription they are covered during its course to the extent of 2,000 francs against pecuniary liabilities on account of bodily accidents involving their civil responsibility." The journal adds that by signing a supplementary personal contract and paying a premium, the subscriber may extend the gratuitous guarantee of 2,000 francs to a much greater figure.

Medical journals ought truly to show themselves more solicitous for the dignity of our profession and for the true interests of the body medical. It is satisfactory to know that this question of insurance against civil professional liability was recently discussed at the *Association de médecins* of Geneva, and that the essayist, Dr. Eugene Patry, showed himself in his conclusions, which were unanimously adopted by the association, distinctly opposed to such insurance. Regarding it first from a practical viewpoint, Patry thinks that the insurance company, seeking to make the greatest possible profits, will not always keep its engagements to the physician and will not cover all the cases. But alongside its more or less problematical advantages, medical insurance against civil liability presents also tangible inconveniences; for, if it should come into conflict with morals, it would risk diminishing the confidence of the public in physicians, which is the very foundation of our career. The Geneva association agrees with Dr. Patry, that it is more dignified for the physician courageously to bear alone the liability for his actions, than to cover himself by insurance. The only case in which medical insurance, according to Dr. Patry, can be justified, is when the physician has under his orders a medical or nursing *personnel* for whom he is civilly responsible. It is quite natural that in such case, a confrère, not wishing to be held responsible for the operative fault of an assistant or for an error in the administration of a remedy, should insure his *personnel;* but in such a case the insurance should clearly comprise only the errors of the *personnel* under the orders of the chief of service, and not those made by the chief himself.

Compulsory Notification of Contagious Diseases

The law of 1902 imposes on the physician in charge of the case the obligation of reporting a contagious disease. The medical profession has always protested against this regulation, and about six months ago the Academy of Medicine passed a resolution that the obligation should be binding jointly on the head of the family, or head of the establishment and the physician in charge (THE JOURNAL, Dec. 5, 1908, p. 1985). A draft of a law has been laid before the senate which places on the head of a family or of an establishment the obligation of making the notification after the physician has warned him of the nature of the malady. The physician is under obligation to present to his patient a notification bulletin, for which he is to demand a receipt. In case the physician does not receive within forty-eight hours an acknowledgement of the bulletin from the sanitary authority, he must make the notification himself. In case the interested person should refuse to give the prescribed receipt, the physician is required to make a notification. Refusal to comply with the law is to be punished by fines varying from 50 to 100 francs ($10 to $20).

A Physician Sentenced for Giving Fraudulent Certificates

A Paris physician has just been sentenced to three months in prison, a fine of 100 francs ($20), and a year's suspension from the practice of his profession for issuing to a laborer a fraudulent medical certificate which permitted the latter, though completely recovered from an injury incurred in his work, to draw an invalid's half-pay from his employer while working for another employer.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, May 21, 1909.

Appendicitis—A Collective Investigation by the Berlin Medical Society

Three years ago the Berlin Medical Society determined to institute a collective investigation on appendicitis in the practice of Berlin physicians and hospitals, in order to clear up some unsettled points regarding this disease. A commission was chosen under whose direction the statistical investigation was made which included the entire year 1907. Prof. Albu and Rotter reported the results for the commission at the meeting of the society on May 12. The participation of practicing physicians in the investigation was, as usually happens, quite insignificant; altogether scarcely 8 per cent. reported their experience. On the other hand, the cases treated in the hospital were quite completely reported; 2,705 cases of acute typhlitis were reported, of these 2,365 were in hospital, 340 at home. The mortality in the hospital cases was 214 (9 per cent.), of those treated at home 6 (1.7 per cent.) there were 1,344 operations in hospitals with 197 deaths (14.6 per cent.), 105 were operated on on the first day with the mortality of 1 (0.9 per cent.), on the second day 318, mortality 23 (7 per cent.); the total mortality of cases operated on in the first two days was 5.6 per cent. On the third day and after (late operation) there were 921 operations with a mortality of 18.8 per cent. (third day 238 operations, mortality 23 or 10 per cent., later operations 683, mortality 150 or 23 per cent.); 1,021 were not operated on, either because it was not necessary or because they were hopeless cases; the mortality was 17 (1.6 per cent.). Different ages showed marked differences in the mortality (0-10 years, mortality 17.4 per cent.; 10-20, 5.3 per cent.; 20-30, 10 per cent.; 30-50, 21 per cent.; 50-70, 80 per cent.). Interval operations were carried on for chronic appendicitis in 97 cases, after an acute attack in 805 cases, total 902 cases with a mortality of 9 (0.9 per cent.). As the result of this investigation Prof. Rotter affirms the principle that the early operation, under all circumstances, promises the best results.

Mortality in the Larger Cities of Germany

According to a publication by the Imperial Health Office, the population of 327 German cities with at least 15,000 inhabitants increased in 1907 from 20,900,000 to about 21,500,000, the number of live births was reduced from 647,541 to 645,686, and the number of stillbirths increased from 20,165 to 20,282. The mortality figure has fallen a little. The mortality of infants per 100 born living sank from 18.6 to 17.1. As far as the causes of death are concerned, there was an increase in deaths from diseases of the respiratory organs, scarlet fever, diphtheria, puerperal fever, and accidents but a decrease in mortality from typhoid, measles, pertussis, gastrointestinal catarrh and suicide. The mortality of tuberculosis has proportionately decreased.

The Fight Against Lupus

The commission appointed to conduct the campaign against lupus proposes to favor the establishment of lupus sanatoria, to assist in the provision of apparatus for phototherapy, to favor the establishment of rooms for lupus patients in the neighborhood of the sanatoria, to provide for the gratuitous treatment and assistance in other ways of needy lupus patients, and to develop as much as possible the methods for the treatment and care of lupus. That increased efforts are necessary to combat lupus has been shown by a collective investigation according to which the number of known lupus patients under treatment in Germany is about 11,000 and the entire number of lupus patients in Germany is estimated at about 30,000.

Death of Professor von Ranke

A few days ago Professor von Ranke, formerly director of the Munich children's clinic, died at the age of 79. He was educated at the university under teachers like Johannes

Müller, Gorup-Besanez, Romberg, and Wunderlich, and was an assistant of Johannes Müller and Hugo Mohl. He went in 1854 to London as house physician of the German hospital, and served under the British government in 1855 and 1856 as civilian surgeon in Smyrna and the Crimea. In 1859 he entered the faculty at Munich. In 1866 he established the children's policlinic in Munich, one of the first children's policlinics in Germany. He has published numerous studies on metabolism, especially of children, as well as a large number of investigations in clinical pediatrics. He was one of the first to make a trial of O'Dwyer's intubation of the larynx and to publish his results. Three years ago he resigned his position as director of the children's clinic, and was succeeded by Professor Pfaundler, a pupil of Escherich.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, May 21, 1909.

Memorial to Auenbrugger

On May 18 a commemoration tablet was unveiled in memory of the centenary of the death of Leopold Auenbrugger, who was the first to use percussion of the chest in diagnosis. He was born in Graz in 1722. His studies of physical phenomena led him to apply the rules of acoustics to medicine and his work on examination of the thorax by a new and wonderful method contains much of what is known at present of percussion. Dr. Auenbrugger did not live to see the universal adoption of his discovery, for it was several years before the bulk of the profession had become convinced of the accuracy and truth of his observations. The method was rediscovered later on several times in different countries, but this does not detract from the priority and usefulness of Auenbrugger's discovery. The Vienna Medical Society (*Wiener medicinisches Doktorenkollegium*) celebrated the day impressively, and some of the descendants of the physician were present at the ceremony of unveiling the tablet.

The German Birth Rate in Austria

In an interesting compilation of statistical data, Dr. Hainisch recently pointed out that the vitality of the German race amongst the numerous nations composing the Austrian empire [illegible] remarkably. In 1880-1885 the excess of births [illegible] was in this country 5.17 per 1,000 Germans, [illegible] amongst the northern Slavonic nation, 7.73 [illegible] the southern Slavs, and 8.34 amongst the Italo-Slavs, [illegible] in Tyrol the Germans had a rate of only 0.31 as against one of 5.92 of the purely Italian population. Regular and constant records kept by the statistical bureau of the ministry of the interior reveal a distinct and constantly increasing tendency in the German race to improve its vitality and lower its mortality. Thus the years 1901-1905 show that the excess of births over deaths in the purely German districts is now 9.58 per 1,000, among the northern Slavs 11.88, among the southern Slavs 10.63, while Tyrol showed 7.95 for the German part of the population, but 8.50 for the Italian component. The German increase of population was even smaller than that of the other nations, but it had increased by 85 per cent. during the last twenty years.

Social Legislation

Pharmacology

DIGITALIS AND ITS STANDARDIZATION

The Need of Biologic Methods of Determining the Activity of the Drug

The Hygienic Laboratory of the Public Health and Marine-Hospital Service has recently added another contribution to its already long list of publications. Bulletin No. 48, on "The Physiologic Standardization of Digitalis," is written by Dr. C. W. Edmunds of the University of Michigan at Ann Arbor, who was working on the subject at the Hygienic Laboratory last summer, and by Dr. Worth Hale, assistant pharmacologist in the Hygienic Laboratory. The bulletin deals with a variety of subjects which are intimately connected with digitalis standardization. After a short résumé of the chemistry of the plant, the writers show by references to the papers of Ziegenbein and others that the amount of digitoxin present in several specimens as determined by a chemical examination does not always run parallel with the activity of the specimens as determined by physiologic methods. This fact is of considerable importance, as some manufacturers are putting on the market preparations standardized by the digitoxin method, but as pointed out, even with uniform digitoxin content, there need not be uniform physiologic activity. It is this very fact which renders assay by biologic methods necessary.

That different digitalis preparations of the same name vary greatly in strength is familiar to all physicians who have used the drugs, and by physiologic methods these differences have been shown in both this country and in Europe to be from 100 to 400 per cent.

After discussing the causes of these differences in strength, the authors take up, from the historical standpoint, the subject of the physiologic testing of members of the digitalis series. They give a complete history of the development of this movement from the earliest writings on the subject down to the present time. In 1865 Fagge and Stevenson, in an address before the Royal Society, recommended the frog as a suitable animal on which the various digitalins might be tested in order to determine their relative activity. It is interesting to note that the method they used was essentially the same as is employed to-day by some manufacturers in the assay of their preparations. From the time of the appearance of Fagge and Stevenson's paper in 1866 until the late nineties, a period of thirty years, many papers were published dealing with the question of digitalis variation. A number of different experimental animals were employed, mainly frogs, dogs, and rabbits, and various standards were taken as indicating their relative activity. It seems strange that during this time no practical application was made of the work. It was not until 1898 that Jacquet, who had been examining some of the [illegible]lysates of digitalis, sugg[illegible] that as the leaves show

the causes of digitalis variation. The most important factor he considered to be slow drying of the leaves in which a very considerable amount of moisture is left, sufficient to permit certain enzymes present in the leaves to break up the glucosids to a greater or less extent. To avoid this, Focke recommends that the leaves be dried quickly in an oven so as to get rid of all the moisture.

Several other important papers which appeared during these few years are abstracted in the Bulletin, giving in this way a complete history of the different methods of assay which have been employed up to the present time.

The second part of the bulletin takes up the examination into the accuracy of the various methods which are in vogue to-day for the standardization of members of the series. All of these methods with their different modifications are grouped into three classes. Preparations may be compared (1) by ascertaining the minimum fatal dose on animals; (2) by a comparison of their relative activity on the frog's heart, and (3) by their relative effects on the blood pressure of the higher animals. In all, eight methods of assay were employed illustrating these different groups. The specimens of digitalis, twelve in all, which were assayed by these different methods, were obtained in the open market and were selected as furnishing types of preparations, some of which were made according to the United States Pharmacopeial directions, while others might be classed together as non-pharmacopeial or as proprietary preparations. Before discussing the results of the examination of these specimens, it will be interesting to note the writers' conclusions as to the accuracy of the methods now in vogue.

In the first place, no two methods of assay gave the same results—preparations which by one method might appear to be of the same strength, by a second method were shown to differ 100 per cent. A superficial comparison of all the tables seemed to demonstrate the apparent worthlessness of physiologic assay, but on closer examination the outlook did not appear so hopeless. Two of the preparations, "Digitol" and a "Concentrated" tincture, stood at the head of the list in practically every table. Four U. S. P. fluid extracts were found to be of quite uniform strength by several of the methods, and finally two preparations, Lloyd's "Specific medicine" and "Digitalone" stood at the foot of the list in practically every table, so that there was in general an agreement between the different methods.

It was perhaps surprising that the agreement should be as close as it was. In the first place it would be very surprising if the lethal doses for guinea-pigs and frogs should show exactly the same relation because in the former animals the drug kills by paralyzing the respiration, while in the latter the cause of death is of cardiac origin. One preparation might act strongly on the nervous system and have feeble heart action, while a second might act strongly on the heart, but show little effect on the medulla. For this reason the authors say that the method of standardizing preparations of digitalis by ascertaining their toxicity on the higher animals is incorrect.

Considering the different methods in which the frog's heart is used, the authors recommend that in the choice of a method great care should be taken to allow sufficient time for complete absorption of the drug, because, unless this is done, a weak preparation of easily absorbable constituents would appear stronger than a strong preparation containing constituents that are absorbed with difficulty.

The blood-pressure method in which cats or dogs are used, offers practical difficulties in the way of obtaining these animals at times, and the necessity of using several animals for one preparation on account of marked variations which appear. The writers conclude that of all the methods those in which frogs are used, are probably the best, as these animals can always be easily obtained, and in them the drug exhibits its true cardiac effect. They believe that either the method in which the minimum lethal dose is determined or that in which the heart is brought to systolic standstill in one hour should be chosen. They point out that physiologic standardization is not infallible, but that most of the discrepancies are due to the fact that actions on entirely different physiologic functions have been taken as standards instead of an action on the circulation.

The final section of the bulletin and that part which will perhaps interest the practicing physician most, is concerned with the report on the various preparations of digitalis which were examined. To permit a comparison, these were all figured to uniform tincture or 10 per cent. strength. The simplest way to indicate the relative activity of the different preparations is to reproduce a table from the bulletin. A table was therefore prepared by adding together the rankings of each preparation as determined by each method of assay, and then dividing the sum by the number of assays. The lowest numbers would therefore indicate the highest values.

PREPARATION	SUM OF RATING	NUMBER OF ASSAYS	FINAL STANDING
H. K. Mulford & Co., "Digitol."	15	7	2.14
Burroughs, Wellcome & Co., "Concentrated Tincture."	16	7	2.28
Nelson, Baker & Co., "Fluid Extract."	25	7	3.57
Hance Brothers & White, "Fluid Extract."	29	7	4.14
Parke, Davis & Co., "Fluid Extract."	31	7	4.43
Wm. S. Merrell Chem. Co., "Normal Tincture."	40	7	5.71
Sharp & Dohme, "Fluid Extract."	42	7	6.00
Lloyd Brothers, "Specific Medicine."	58	7	8.28
Parke, Davis & Co., "Digitalone" Specimen 3	34	4	8.50
Parke, Davis & Co., "Digitalone" Specimen 1, 2			

This table indicates probably very closely the relative strength of the different preparations examined and only a few of them are discussed individually.

Two preparations of Mulford's "Digitol" were examined, and although it is said to be "assayed, tested physiologically" and standardized to contain 0.025 gm. digitoxin in 100 c.c., the two preparations were not of the same strength as determined by the "one-hour frog" method, one being 30 per cent. weaker than the other.

Merrell's "Normal Tincture" was diluted to the same degree as the fluid extracts, but as normal tinctures are said to be made from fresh leaves, it is perhaps hardly fair to this preparation, but even so it compares with them fairly well. The maximum dose recommended is about the same as for fluid extracts (3 minims).

Lloyd's "Specific Medicine, Digitalis," gave very interesting results, especially when compared with the claims made by this firm. It was assayed by seven methods—in one table it appears at the bottom of the list; in four it stands last but one, and in the other two it is third from the bottom. Its comparative weakness is thus very clearly shown when it is compared with U. S. P. fluid extracts, and yet, according to Lloyd Brothers' advertising literature, "Specific Medicines" have about double the effect on the system that is possessed by ordinary (non-proprietary?) fluid extracts. The dose recommended is from ⅓ to 1 minim every hour, which the writers point out is certainly not less than that of a pharmacopeial fluid extract.

Equally interesting were the results obtained with Parke, Davis & Co.'s "Digitalone," three bottles of which were examined. Two of the specimens were dark brown and contained a heavy precipitate and a somewhat sour odor. The other bottle contained a clear light yellow fluid in which was a flaky precipitate. This latter bottle showed a digitalis action, but this was very feeble as compared with any other digitalis preparation examined excepting Lloyd's preparation discussed above. In fact, it is interesting to note that in six of the seven tables the "Specific Medicine" and one or the other "Digitalone" preparations compete for the last place. It was perfectly evident from the appearance of the specimens of

Digitalone that two of them had deteriorated and by the frog's heart method they were shown to be practically devoid of digitalis action. By some of the lethal dose methods they caused death when given in very large doses, but it was a question whether death resulted from the digitalis itself or from digitalis decomposition products. Specimen No. 2 when injected into the circulation of cats raised the blood pressure in two animals 55 per cent., which result the writers suggest may have been due to decomposition products of digitalis acting on the medulla, since the true cardiac action of the drug had been shown to be absent by tests on frogs. Specimen No. 1 when similarly injected showed an action on the blood pressure comparable to the nitrite series, for instead of raising the pressure it lowered it 23 per cent.

While showing the worthlessness of these preparations, the authors point out that although "Digitalone" is claimed to be an aseptic, non-alcoholic *permanent* solution of digitalis of the same strength as the U. S. P. tincture, it certainly is not permanent under all conditions. One preparation which evidently had not decomposed, at least completely, was about half the strength of a U. S. P. tincture, while the other preparations not only possessed no digitalis action, but were positively harmful.

Correspondence

Necrosis of the Liver After Chloroform Anesthesia

To the Editor:—May I be permitted to comment on the conclusions reached by Drs. John R. Williams and W. D. Becker in their report of a case of "Necrosis of the Liver After Chloroform Anesthesia," The Journal for May 8, 1909, page 1488? Under title, "Postoperative History," a typical picture of the second stage of acute yellow atrophy of the liver is drawn. These second stage symptoms became rapidly deepened on the third day after operation and chloroform anesthesia, ending in death forty hours after the first indication of any mental disturbance.

The history of the case points very clearly to a severe bacterial infection before the operation. We are shown a patient "subject to attacks of 'indigestion' from childhood." Turbid, dark-brown urine, of acid reaction, and showing albumin blood cells and hyalin casts found postmortem can be assumed to have been present four days before death at the time when the "slight yellow tinge to the sclera" was observed, together with the increasing jaundice "rather noticeable" at the time of death. The acidity of this postmortem urine certainly indicates acid intoxication, and it is a pity that no record of any examination of the urine before the operation appears in the report.

F. W. White designates as one of the special poisonous substances, damaging the function of the liver and thereby producing acute yellow atrophy, "certain products of decomposition in the bowel." Such products of decomposition are very likely to have been present in the case reported even before the attack on April 16 of vomiting and diarrhea, pain, tenderness and no elevation of temperature. Adding to this an expectant treatment of four days, evidences in the urine of acid intoxication and destructive protein metabolism not excluded; at the time of the operation the presence of a slight yellow tinge to the sclera; the finding of an abscess thoroughly walled off containing about eight ounces of foul-smelling pus, up to which event the formation of gastrointestinal toxins could go on undisturbed; the temporary general improvement following evacuation and drainage of the abscess, but the steady increase of jaundice; add finally the third stage symptoms of forty hours' duration, death and the postmortem findings, and we do not have to adduce the toxic action of chloroform used as an anesthetic "in the absence of other explanation" to account for the acute yellow atrophy and its typical pathology.

At the time of the operation there was a slight yellow tinge to the sclera, the patient died in less than four days from yellow atrophy of the liver. In a majority of cases death ensues before the fourteenth day. Almost one-half of the cases terminate fatally in from the fifth to the tenth day, says A. O. J. Kelly in "Modern Medicine," vol. v. Did or did not chloroform used as an anesthetic cause the death of the patient in question? I think it did not.

I am not as yet prepared to advocate chloroform as a safe anesthetic in cases in which gastrointestinal decomposition products are to be suspected and where functional disorders of the liver is evidenced by even slight jaundice in the absence of gross gall duct obstruction.

In order to prove that chloroform in measured doses given to physiologic effect produces acute yellow atrophy of the liver it will be necessary to collect cases in which the dosage has been accurate and the exclusion of pre-existing atrophy has been positive. Postulates such as those of Drs. Williams and Becker from premises so contradictory are not satisfactory evidence of the danger of chloroform as an anesthetic and should be promptly denied.

Carl R. Krone, M.D., Oakland, Calif.

Dr. Krone's letter was submitted to Drs. Williams and Becker for comment, and they replied as follows:

To the Editor:—Dr. Krone's criticism of our report is of interest because it suggests the widely different conclusions which careful students may arrive at from a given set of data. He states:

> In order to prove that chloroform in measured doses given to physiologic effect produces acute yellow atrophy of the liver, it will be necessary to collect cases in which the dosage has been accurate and the exclusion of pre-existing atrophy has been positive.

It may be inferred from this that Dr. Krone believes it is not proven that chloroform has ever produced liver necrosis, but it seems to us that it has been too generally conceded and too well established to make this a point in a controversy. Moreover, the amount of chloroform administered apparently has little to do with the necrosis which may follow, for a study of the many cases reported in the literature supports this view. In this case, the chloroform was accurately measured, and as was indicated in the report, approximately 4 drams were used. Dr. Krone believes that the liver condition was due to a pre-existing bacterial intestinal intoxication rather than to the toxic effects of the chloroform, and supports his contention mainly on the rather slender evidence presented in the urine examination.

A summary of the facts is as follows: The patient had an old inflammatory condition of the appendix, evidenced both by the history and the anatomic findings. During the attack for which he was operated on he suffered from pain in the abdomen, vomiting and diarrhea. A very slight jaundice was present. The postoperative history was uneventful until the third day, when the patient became irrational and later maniacal. Then followed convulsions, coma, and death.

The history of this case until the third day after operation is clearly one of appendiceal disorder. There was absolutely nothing about it up to this time to suggest either liver disease or intestinal intoxication. The urine examinations made at the time of operation and immediately following it were practically normal. The urine examination referred to by Dr. Krone was made by Dr. Williams from the excretion taken from the bladder at the postmortem. It was entirely different from those previously made, indicating the development of another pathologic state. It is invading the realm of the speculative to conclude from this single examination that the patient was suffering from bacterial poisoning and it is not in accord either with the history of the case or with the material evidence of the postmortem. Histologic examination of the liver sections also pointed strongly toward chloroform necrosis rather than "idiopathic" acute yellow atrophy. It must be conceded that cases of this sort are not capable of demonstration as is a mathematical proposition, nevertheless, we believe the history and findings warrant the conclusion as to cause of death. Intestinal toxemia does not adequately explain it. Furthermore, we are persuaded that chloroform as an anesthetic is more dangerous than is generally appreciated, for since the study of this case two others of similar type and followed by death, have come to our notice in this community.

John R. Williams.
W. D. Becker.

Rochester, N. Y.

Book Notices

Text-Book of Operative Surgery. By Warren Stone Bickham, M.D., Phar. M., Junior Surgeon, Touro Hospital, New Orleans. Cloth. Pp. 1206, with illustrations. Third edition. Price, $6.50. Philadelphia: W. B. Saunders Co., 1908.

The text of this edition of Bickham's book has been enlarged by nearly a third, and the illustrations by over half. We are glad to note that some of the omissions and mistakes indicated in the previous review have been corrected.

Bickham still speaks of the advisability of flooding the field of operation to prevent air embolism after injury of the large veins at the base of the neck. He neglects to mention provisional ligation, a plan followed by Fenger with such success. Temporary ligation—merely closing the vein—would prevent the possibility. Flooding the field of operation in such cases is more theoretical than practical. The excision of a synovial sheath of an extensor tendon is still illustrated at a point in the hand where no sheath exists.

The most striking thing in the book is the detail with which the surgical anatomy and the steps of the different operations are given. There is considerable doubt as to the necessity of such detail. It is the application of didactic work to surgical procedures. Naturally, the outlines given can be followed but rarely.

The technic is well described, but the statement made in regard to the second edition that no rules are given to aid an inexperienced operator to make a selection of the procedure to be used holds true for the present edition.

The enormous task of collating and arranging the steps of the different procedures has been well and conscientiously done, and the book will be exceedingly useful for reference.

A Text-Book of General Pathology. By J. Martin Beattie, M.A. (N. Z.), M.D. (Edin.), Professor of Pathology and Bacteriology, University of Sheffield, and W. E. Carnegie Dickson, M.D., B.Sc., F.R.C.P., Lecturer on Pathological Bacteriology, and Senior Assistant to the Professor of Pathology in the University of Edinburgh. Cloth. Pp. 475, with illustrations. Price, $5. Philadelphia: P. Blakiston's Son & Co., 1908.

The pathologist will examine this book with particular interest because of the opening statement of the preface that "the present volume is based on the teaching of the Edinburgh school." Knowing the great influence that has been exercised by this school in British medical thought and practice, he will be interested in learning what it now represents in its teaching and ideals in so fundamental a branch as pathology, and what it may have to offer that is in advance of the ordinary standards. The Edinburgh standards, if the book at hand represents them fairly, call for clear presentation, in a concise way of the most essential facts, without any strong attempt to encourage and to lead students into extensive and independent reading or investigation. Accuracy, care, clearness and honesty of method and purpose are all marked characteristics of this book, but there is no intention of exhaustiveness exhibited, and one gets the impression that the writers have in mind a body of students who have no very strong preparation in the fundamental branches, and who are not to be expected to do anything more than to prepare themselves for the clinical courses. The Edinburgh teaching, therefore, would seem to fall short of the ideals of the very best of the American schools, while probably doing better than is the practice in many of them.

This volume is devoted to the subject of general pathology, a subsequent volume on special pathology being promised. It is reliable, in some places original, as in the discussions of infarct formation and the tissue changes of inflammation, and a good and useful small text-book of general pathology.

It falls short, however, of being an ideal book, according to the highest standards of medical education. The subjects are far too superficially treated to satisfy a thorough, interested student. There is too often the air of one who should say: "These are the main facts, and all you will need to know to pass your examinations; there are many fundamental principles and unsettled theories that you need not bother your head about." Also many subjects are treated in a very incomplete manner. For example, in discussing air embolism, no attempt is made to explain the conditions necessary in order that air may enter the vessels; the mechanism of the effects produced by the intravascular air is not considered; and *no mention* is made of the possibility of air embolism from obstetric manipulations or from attempted intravenous injection of saline solutions—surely serious omissions in the education of the future practitioner. Similar omissions, not warranted on the ground of economy of space, are by no means infrequent; to mention only one, in the chapter of immunity, the highly important subject of anaphylaxis is not even spoken of.

We criticize this book to this extent because it is worth it. There are many commendable features, and any medical student will find help and profit in its pages—it comes so near being an excellent text that the shortcomings are all the more to be regretted.

One of the best features is the illustrating, which is splendid. There is perhaps no other English text with equally good illustrations from the standpoint of clearness, accuracy, and helpfulness for the student. For reproduction of photographs they are unusually good, being in the main as clear as diagrammatic drawings, with the added virtue of being true reproductions of actual conditions. In order to make these numerous reproductions the publishers have printed the entire book on highly glazed paper, which is exceedingly trying to the eyes and very easily torn. It is also to be presumed that the illustrations account for the price, being rather high for a book of this size.

Miscellany

The Diagnostic Value of the Porges Reaction in Paresis.—C. Tommasi (*Riv. di patol. nerv.*, February, 1909, xiv, No. 2) has tested the Porges glycocholate of soda reaction in 10 paretics, 1 case of suspected syphilis, 1 epileptic, 1 idiot and 6 senile dements, and tabulates and discusses the results. Two series of tests were made with an interval of from a week to a month between them in various cases. In the first series he obtained 3 positive and 7 negative reactions in the paretics and 3 positive and 6 negative in the others. In the second series there were only 10 paretics, 1 having died in the interval; the others gave 3 positive and 6 negative reactions. Of the 9 non-paretics there were also 3 giving positive reactions, but only 1 of these was positive in the first series (in the case of suspected syphilis), a dubious reaction appearing only after fifty hours. One paretic who showed a negative reaction in the first series was one of those who gave a positive reaction in the second series. From these findings, Tommasi concludes as follows: 1. The reaction of Porges with soda glycocholate is not constant in paresis. 2. A positive reaction may occur in individuals free from paresis or syphilitic taint in a proportion of cases nearly or quite equal to that in which it occurs in paretics. 3. The reaction is not always a constant result, either positive or negative in the same individual, paretic or non-paretic.

Medical Genealogy.—The Germans have inaugurated an effort to collect the medical histories of families and preserve them for purposes of research on heredity and similar questions. The *Centralstelle für deutsche Personen- und Familienforschung*, which has its headquarters at Leipsic, Neumarkt 29, has founded a department for collection of biologic and medical data bearing on the medical genealogy of different families. The necessity for such research and collections was emphasized anew by Professor Sommers in his postgraduate course at Giessen last August on "Families and Heredity," especially the necessity for study of the connection between the inherited *Anlage* and the fate of the family, and between the *Anlage* and the environment, as the most effectual means of throwing light on the evolution of the human race. It is the only means to determine the laws regulating the inheritance of chromosomes and the prominence or latency of various properties in the offspring. In an article in the *St. Petersburg. med. Wochenschrift*, May 15, Eichfuss urges systematic research in this line, especially in regard to hemophilia, tabes, tuberculosis, scrofula, carcinoma, syphilis and mental and nervous affections. He says that the field has been

worked a little by the psychiatrists and criminologists, but it will yield a most interesting and instructive harvest in all lines.

To Open the Thorax for Autopsy.—In the *Semana Medica*, April 15, 1909, D. Del Valle gives an illustration to show the advantages of obtaining access to the thorax, after the usual median incision from chin to symphysis, by cutting out the sternum and adjoining costal cartilages, down to and including the fifth. The inner end of the clavicle is first disarticulated. The flap of bone and cartilage thus outlined is separated from the parts beneath and removed, leaving a broad and long opening into the chest, wider below than at the top, while the retention of the sternum and cartilages below the fifth leaves the diaphragm in place intact. This prevents the escape of fluids, while allowing much more instructive oversight of conditions.

Treatment of Neurasthenia.—The Germans have a word, *Ausspannung*, which means to take off the harness and step out of the shafts for a brief interval. In a communication to the *Zeitschrift für Balneologie*, ii, No. 1, Boas advises such periods of relaxation—*Ausspannungen*—as a systematic theratrip, he sends the patients away from home for five or ten days at intervals of six or eight weeks, and has been amazed at the resulting benefit in many instances. The neurasthenic conditions resulting from excessive mental work or emotional strain are the ones that benefit by these brief relaxation trips. It is not necessary to go to a health resort; a trip to some other city will answer the purpose in winter where there is opportunity for attending theaters, concerts, museums, etc. The main point is to have these little *Ausspannungen* repeated systematically every six or eight weeks.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U. S. Army, for the week ended June 5, 1909:

Coffin, J. M., capt., granted an extension of 18 days to his leave of absence.

Palmer, F. W., capt., relieved from duty at Fort Benjamin Harrison, Ind.; will proceed at the expiration of his present leave of absence to Fort William H. Seward, Alaska, for duty.

Hutton, P. C., capt., when relieved at Fort William H. Seward, ska, will proceed to Fort Snelling, Minn., for duty.

Murray, A., capt., relieved from duty at Fort DuPont, Del.; will proceed to Fort Egbert, Alaska, for duty.

Grissinger, J. W., capt., when relieved from duty at Fort Egbert, Alaska, will proceed to Fort Gibbon, Alaska, for duty.

Hall, J. F., capt., when relieved at Fort Gibbon, Alaska, will proceed to Fort Brady, Mich., for duty.

Whaley, A. M., capt., relieved from duty at Fort Sam Houston, Texas, and ordered to Fort St. Michael, Alaska, for duty.

Sweazey, V. E., capt., when relieved from duty at Fort St. Michael, Alaska, will proceed to Plattsburg Barracks, N. Y., for duty.

Miller, E. W., capt., granted an extension of one month to his leave of absence.

Truby, W. F., major, granted an extension of 15 days to his leave of absence.

George, W. R. S., O'Day, S. F., Philips, H. F., Kearney, R. A., Miner, Donald, 1st lieutenants, M. R. C., ordered to proceed home from their present station.

Tenney, E. S., 1st lieut., M. R. C., granted leave of absence for 1 month, 20 days, about June 7.

Porter, E. H., 1st lieut., M. R. C., ordered from Fort Worden, Wash., to Fort Casey, Wash., for temporary duty.

Magee, J. C., 1st lieut., M. R. C., granted leave of absence for 5 days.

Doerr, C. E., 1st lieut., M. R. C., granted leave of absence for 10 days.

Harmon, D. W., 1st lieut., M. R. C., granted leave of absence for 20 days.

Dear, W. R., 1st lieut., M. R. C., granted leave of absence for 10 days.

Doerr, C. E., Bayly, R. C., Leary, T. J., 1st lieutenants, M. R. C., ordered to Fort D. A. Russell, Wyo., for duty with Company A, H. C.

Shields, W. S., Card, D. P., Kerr, R. W., 1st lieutenants, M. R. C., ordered to San Francisco, Cal., for duty with Company B, H. C.

Parce, A. D., Wilson, J. A., Goldthwaite, R. H., 1st lieutenants, M. R. C., ordered to Fort Niagara, N. Y., for duty with Company C, H. C.

Burket, J. A., 1st lieut., M. R. C., relieved from duty at Fort Snelling, Minn., and ordered to Fort Riley, Kans., for duty.

King, C. T., 1st lieut., M. R. C., relieved from duty at the Presidio of Monterey, Cal., and ordered to Fort Williams, Me., for duty.

McCornack, C. C., 1st lieut., M. R. C., relieved from duty at Vancouver Barracks, Wash., and ordered to Plattsburg Barracks, N. Y., for duty.

Fisk, O. C., 1st lieut., M. R. C., relieved from duty at Fort Leavenworth, Kans., and ordered to Fort Terry, N. Y., for duty.

Fox, J. S., 1st lieut., M. R. C., relieved from duty at Fort Sam Houston, Texas, and ordered to Fort McKinley, Me., for duty.

Kennedy, J. S., 1st lieut., M. R. C., relieved from duty at Fort Sam Houston, Texas, and ordered to Fort Bliss, Texas, for duty.

Demmer, C. C., 1st lieut., M. R. C., relieved from duty at Fort Ontario, N. Y.; will proceed to Fort Rodman, Mass., for duty.

Chase, C. L., 1st lieut., M. R. C., when relieved from duty at Fort Rodman, Mass., will proceed to Fort Gibbon, Alaska, for duty.

Harmon, D. W., 1st lieut., M. R. C., will proceed to Fort Davis, Alaska, for duty.

Trotter-Tyler, G., 1st lieut., M. R. C., ordered from Fort Adams, R. I., to Fort Strong, Mass., for temporary duty.

Mueller, A., 1st lieut., M. R. C., Magee, J. C., 1st lieut., M. R. C., Heath, G. D., Jr., 1st lieut., M. R. C., ordered to San Francisco, Cal., for duty at the Army General Hospital.

Coburn, H. C., 1st lieut., M. R. C., ordered to Fort Slocum, N. Y., for duty.

Tuttle, A. D., 1st lieut., M. R. C., ordered to San Francisco, Cal., to sail July 5 for the Philippine service.

Wright, F. S., 1st lieut., M. R. C., ordered to New York City on business of the Medical Department, and thence to the Presidio of Monterey, Cal., for duty.

Garcia, L. C., 1st lieut., M. R. C., ordered to Fort McDowell, Cal., for duty.

Snow, C. G., 1st lieut., M. R. C., ordered to Fort Leavenworth, Kans., for duty.

Dear, W. R., 1st lieut., M. R. C., ordered to Fort Sheridan, Ill., for duty.

Fronk, C. E., 1st lieut., M. R. C., ordered to Fort Sam Houston, Texas, for duty.

McDiarmid, N. L., 1st lieut., M. R. C., ordered to Fort Sam Houston, Texas, for duty.

Smith, W. H., 1st lieut., M. R. C., ordered to Vancouver Barracks, Wash., for duty.

Stayer, M. C., 1st lieut., M. R. C., ordered to Fort McDowell, Cal., for duty.

Treuholtz, C. A., 1st lieut., M. R. C., ordered to Fort Baker, Cal., for duty.

Waring, J. B. H., 1st lieut., M. R. C., ordered to Fort Lawton, Wash., for duty.

Davis, A. D., 1st lieut., M. R. C., ordered to Fort Lawton, Wash., for duty.

McLellan, George H., 1st lieut., M. R. C., ordered to Fort Crook, Nebr., for duty.

Dunbar, L. R., 1st lieut., M. R. C., ordered to Fort Casey, Wash., for duty.

Trotter-Tyler, G., 1st lieut., M. R. C., relieved from duty at Fort Adams, R. I., will proceed to Vancouver Barracks, Wash., for duty.

Lowe, Thomas S., 1st lieut., M. R. C., relieved from further duty at Fort Walla Walla, Wash., and from temporary duty at Vancouver Barracks, Wash.; will proceed to Fort Lawton, Wash., and report for duty in the Army Transport Service.

George, W. R. S., 1st lieut., M. R. C., honorably discharged from the service of the United States, his services being no longer required.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ended June 5, 1900:

Guest, M. S., surgeon, detached from the *Tennessee* and ordered to the Naval Academy, Annapolis, Md.

Bogert, E. S., Jr., surgeon, detached from the Naval Academy and ordered to the Navy Yard, New York, for temporary duty.

Hoen, W. S., P. A. surgeon, detached from duty at the Naval Hospital, Las Animas, Colo., and ordered to the *Philadelphia*.

Angwin, W. A., P. A. surgeon, detached from the *Philadelphia* and ordered to the *Tennessee*.

Ziegler, J. G., Kerr, W. M., Clark, G. F., Harlan, T., Riker, G. A., asst.-surgeons, commissioned asst.-surgeons, with rank of lieutenants (junior grade), from April 14, 1909.

Jenkins, H. E., Riddick, W. J., acting asst.-surgeons, commissioned acting asst.-surgeons, with rank of lieutenant (junior grade), from May 26, 1909.

Hart, S. D., acting asst.-surgeon, ordered to duty at the Naval Hospital, Navy Yard, New York.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended June 2, 1909:

Cofer, L. E., asst. surgeon general, directed to proceed to Fortress Monroe and Fisherman's Island, Va., on special temporary duty.

Young, G. B., surgeon, detailed to represent the service at the meeting of the American Medical Association, to be held in Atlantic City, N. J., June 7-11, 1909.

Grubbs, S. B., P. A. surgeon, directed to proceed to La Guaira, Venezuela, on special temporary duty.

Goldberger, Joseph, P. A. surgeon, directed to proceed to Woods Hole, Mass., on or about June 25, 1909, on special temporary duty.

Wilson, R. L., P. A. surgeon, granted 15 days' leave of absence from June 2, 1909.

Stiles, Charles W., chief, division of zoology, Hygienic Laboratory, detailed to attend the fifty-sixth annual meeting of the Medical Society of North Carolina in Asheville, N. C., June 15, 1909.

Adams, F. B., acting asst.-surgeon, granted 21 days' leave of absence from June 1, 1909.

MacCaffry, W. B., acting asst.-surgeon, granted 4 days' leave of absence in May, 1909, under paragraph 210, Service Regulations.

Stuart, A. P., acting asst.-surgeon, granted 30 days' leave of absence from June 30, 1909.

Wright, F. T., acting asst.-surgeon, granted 30 days' leave of absence, without pay, from May 23, 1909.

Hunt, Reid, chief, division of pharmacology, Hygienic Laboratory, detailed to attend the annual session of the American Medical Association (Section on Pharmacology and Therapeutics) to be held in Atlantic City, N. J., June 8-11, 1909.

BOARD CONVENED

Board of medical officers convened to meet at the Marine Hospital office, Seattle, Wash., May 29, 1909, for the purpose of examining alien Yutaka. Detail for the board: P. A. Surgeon M. W. Glover, chairman; Asst.-Surgeon C. W. Chapin, recorder.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine Hospital Service, during the week ended June 4, 1909:

SMALLPOX—UNITED STATES

Arizona: Winslow, April 24-May 1, 1 case, 1 death
California: Los Angeles, May 8-15, 3 cases; San Francisco, 1 case.
District of Columbia: Washington, May 15-22, 1 case
Georgia: Atlanta, Jan 15-May 21, 62 cases; Macon, May 2-9, 3 cases
Illinois: Danville, May 16-23, 2 cases, Springfield, May 14-21, 1 case
Kentucky, Covington, May 15-22, 3 cases; Newport, 1 case
Massachusetts: Somerville, May 15-22, 1 case
Minnesota Duluth, May 13-20, 2 cases
Missouri: Kansas City, May 15-22, 2 cases
Montana: Butte, May 6-20, 11 cases
New Jersey New Brunswick May 1-22, 5 cases
North Carolina: State of, April 1-30, 127 cases
Ohio: Columbus, May 15-22, 1 case; Sandusky, May 8-15, 1 case
Pennsylvania, Philadelphia, May 14-21, 1 case; Pittsburg, May 15-22, 1 case
Utah: State of, April 1-30, 37 cases
Virginia, Portsmouth, May 18-25, 2 cases, 2 deaths
Washington: Spokane, May 1-8, 5 cases
Wisconsin: Milwaukee, May 15-22, 2 cases

SMALLPOX—INSULAR

Philippine Islands: Manila, April 10-17, 9 cases, 2 deaths

SMALLPOX—FOREIGN

Africa: East London, April 10-17, 1 case, 1 death
Algeria: Algiers, April 1-30, 18 cases imported
Brazil: Rio de Janeiro, March 29-April 25, 44 cases, 26 deaths; Sao Paulo, April 5-11, 1 death
Canada: Halifax, May 8-15, 2 cases; Toronto, April 24-May 15, 5 cases; Yarmouth, May 22-29, 2 cases
Ceylon: Colombo, March 27-April 17, 5 cases, 4 deaths
China: Amoy, April 20 present
Egypt: Cairo April 8-29, 22 cases 19 deaths
India Bombay, April 20-27, 20 deaths; Calcutta, April 10-17, 171 deaths; Madras, April 17-23, 2 deaths; Rangoon, April 10-17, 9 deaths
Indo China: Saigon, April 3-10, 2 cases, 2 deaths
Italy: Catania, May 1-8, 1 case; Naples, May 2-16, 17 cases, 7 deaths
Java, Batavia, April 10-17, 3 cases
Mexico Matamoras, May 8-15, 1 case; Monterey, May 9-16, 10 deaths; Veracruz, 1 case
Portugal: Lisbon, May 8-15, 4 cases
Russia: Odessa, April 24-May 1, 1 case, 1 death; St Petersburg, April 10-17, 13 cases, 5 deaths, Warsaw, March 6-20, 6 deaths
Servia: Belgrade, May 1-8, 10 cases, 2 deaths
Spain Barcelona, May 3-10, 5 cases; Madrid, April 1-30, 30 deaths, Vigo, May 1-8, 1 death

YELLOW FEVER

Barbados: May 8-15, 1 case
Brazil Para, May 1-8, 4 cases 2 deaths
Mexico: Merida, May 14, 1 case, imported from Tekax

CHOLERA—INSULAR

Philippine Islands: Provinces, April 10-17, 133 cases, 90 deaths

CHOLERA

India Bombay, April 20-27, 25 deaths; Calcutta, April 10-17, 108 cases; Rangoon, 5 deaths
Russia St Petersburg, May 7-14, 15 cases, 7 deaths

PLAGUE

Brazil: Rio de Janeiro, March 27-April 25, 3 cases
Chile Antofagasta, April 17, 9 cases, Iquique, April 18, 22 cases
Egypt General, April 16, 29 cases 19 deaths
German East Africa: Muanza, April 14, 60 deaths
India General, April 10-17, 5,309 cases, 4,594 deaths, Bombay, April 20-27, 508 deaths, Calcutta, April 10-17, 90 deaths, Rangoon, 30 deaths
Indo China Saigon, April 3-10, 5 cases, 5 deaths
Japan Himeji, April 30, 1 case, 1 death, Kobe, April 17-24, 2 cases, 2 deaths; Yokohama, April 24-May 1, 1 case
Peru, Lima, April 24-May 1, 10 cases, 6 deaths
Straits Settlements, Singapore, April 3-10, 2 deaths

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed

LENHARTZ DIET.

To the Editor—Will you kindly state what constitutes the so-called Lenhartz diet, which is used in ulcer of the stomach?

G N P, Yonkers, N Y

ANSWER—The Lenhartz diet was described in THE JOURNAL, Jan 26, 1907, and again May 30, 1908, p 1813 It consists of a somewhat abundant diet, chiefly of proteids, given on the principle that the excess of acid is thereby neutralized and the healing of the ulcer facilitated The patient is put to bed and absolute rest enjoined so that the first two weeks following hematemesis the feces and urine are passed in a bedpan Mental quietude is also enjoined, especially freedom from any form of excitement. Confinement to bed is continued for at least four weeks An ice bag is laid over the region of the stomach to promote the contraction of that organ, lessen the exposed surface of the ulcer and relieve pain On the first day, even after hematemesis, the patient receives in teaspoonful doses about a pint of iced milk and one, two or three fresh beaten eggs during the first twenty-four hours The eggs are beaten up entire with a little sugar and the cup containing them placed in a dish filled with ice, so that they remain cold In addition two or three times a day or oftener, bismuth subnitrate in, at most, 30 grain doses, is given, suspended in water, and these doses are repeated, as needed for the first ten days, two or three times a day The amount of milk is increased daily by about 100 c c. (3½ oz) and daily one egg is added until at the end of the first week about 800 c c (26 oz) of milk and from six to eight eggs are taken daily After six days scraped beef can be given in quantities increased from the beginning dose of 31 gm (1 oz) to 70 gm (2¼ oz) the second day, and so on, the beef being stirred into the egg Gruel, softened zwieback, etc, may be added to the diet after two weeks, and at the end of four weeks an abundant mixed diet, avoiding coarse vegetables and other irritating substances, can be given The bowels are kept open by enemata

The method is described by M Wagner (*Muench med Wchnschr*, Jan 5, 1904) and also by J V Haberman (*Medical Record*, June 16, 1906) This method was tested by E Wirsing (*Archiv f. Verdauungskrankheiten* xi, 3), in comparison with the method of Leube, and he reaches the conclusion that it is better than the older method for patients who have had recent hemorrhages or who are much debilitated but that the method of Leube should be given the preference in ordinary cases Wirsing's article was reviewed in THE JOURNAL, Oct 7 1905, page 1122

This form of treatment has been tested by Lambert in eight cases of a severe type (*Amer Jour Med Sci*, January, 1908, abstracted in THE JOURNAL, Feb 8, 1908, p 480), and he comes to the conclusion that the claims of Lenhartz are correct; that the cure is equally efficient with the older method, is more rapid and more certain, vomiting stopping more quickly and relapse occurring less frequently than in the Leube method; that pain ceases more promptly, a sufficient food supply is afforded, anemia can be treated earlier and a return to full diet allowed sooner than in the older method

Lambert's modifications are more fully described in THE JOURNAL, Aug 8, 1908, p 497 If the patient prefers he allows a mixing of the eggs and milk and feeding the mixture, instead of the usual alternation as advised by Lenhartz He also substitutes chopped chicken for the raw ham in the treatment of Lenhartz After the tenth day Lambert allows a broiled chop beefsteak or chicken as a substitute for the raw beef Later ice cream is added and zwieback is changed to toasted bread, and other cereals take the place of rice

ETIOLOGY OF SCARLET FEVER

To the Editor—Please give me references to the latest findings or research in regard to the etiology of scarlet fever

E B FUNKHOUSER, M D, Trenton, N J

ANSWER—Among the more important recent articles embodying the results of investigations into the etiology of scarlet fever may be mentioned especially the following

Hektoen, L Bacteriologic Examination of the Blood During Life in Scarlet Fever with Special Reference to Streptococci, THE JOURNAL A M A, 1903, xl, 685

Weaver, George H Bacteriologic Studies of the Skin and Throat in Cases of Scarlatina, Tr Chicago Path Soc, 1903, v, 222; [illegible] of Streptococci, Especially those cultivated fro[illegible] by Human Sera, *Jour Infect. Dis*, 190[illegible] of Bacteria from the Throats of Scarlet Fever Patients, with special reference to Streptococci, *Jour Med Research*, 1903, ix, 246

Mallory, F B Scarlet Fever: Protozoon-like Bodies Found in Four Cases, *Jour Med Research*, 1904, x, 483

Jochmann, G Die Bakterienbefunde bei Scharlach und ihre Bedeutung fur den Krankheiteprocess, *Ztschr f klin Med*, 1905, lvi, 316

Duval Die Protozoen des Scharlachfiebers, *Virchow's Arch f path Anat*, 1905, clxxiv, 485

Field C W The Presence of Certain Bodies in the Skin and Blister Fluid from Scarlet Fever and Measles, *Jour Exper. Med*, 1905, vii, 343

Ruediger, G F: The Streptococci from Scarlatina and Normal Throats, *Jour Infect Dis*, 1906, iii, 755

Gabritschewsky Ueber Streptokokenvaccine und desen Verwendung bei der Druse der Pferde und dem Scharlach des Menschen, *Centralbl f Bakteriol*, part 1, Orig 1906, xli, 719, 844

Tunnicliff, R M The Streptococco opsonic Index in Scarlet Fever, *Jour Infect Dis*, 1907, iv, 304

Hektoen, L: Is Scarlet Fever a Streptococcus Disease? THE JOURNAL A M A, 1907, xlviii, 1158

Gabritschewsky Ueber Streptokokkenvrtheme und ihre Beziehungen zum Scharlach, *Berl klin Wchnschr*, 1907, xliv, 556.

Gamaleia, N. T.: Scharlacherreger. *Berl. klin. Wchnschr.*, 1908, xlv, 1795.

Williams, A. W.: Recent Studies on Scarlet Fever, *Am. Jour. Obst.*, 1908, lviii, 152.

Schleissner, F.: Bakteriologische und serologische Untersuchungen bei Scharlach, *Wien. klin. Wchnschr.*, 1909, xxii, 553.

HAIR-PIN IN THE FEMALE BLADDER

To the Editor: The report of T. L. Hazard in THE JOURNAL, May 29, page 1759, on the case of a "Hat-Pin in the Male Urethra," prompts me to forward the following: The patient, who was referred to me by Dr. Shaw, of Junction City, Ohio, was a young, robust girl; she stated that while dressing, a hair-pin fell from her hair striking a nearby sofa, from which it rebounded into her bladder (unique explanation!). The hair-pin could be seen through the cystoscope, the loop of the pin pointing toward left wall of bladder. The accident (?) having occurred so recently, there was no incrustation and the pin was easily removed by hooking it out of the bladder with the little finger of my left hand, introduced after full dilatation of the urethra under general anesthesia.

STARLING S. WILCOX, M.D., Columbus, Ohio.

BILLROTH'S ANESTHESIA SOLUTION

To the Editor:—Your explanation of the A. C. E. mixture in THE JOURNAL, May 29, page 1775, was incorrect. The mixture was also called the 1, 2, 3 mixture:—1 part alcohol, 2 parts chloroform, 3 parts ether. W. E. SHAW, Cincinnati.

ANSWER: The ordinary A. C. E. mixture, so called because it is a mixture of alcohol, chloroform and ether, contains 1 part of alcohol, 2 parts of chloroform, and 3 parts of ether, as our correspondent states. The query which was answered in THE JOURNAL, May 29, referred to Billroth's anesthetic mixture, which is also an A. C. E. mixture, composed of 1 part of alcohol, 3 parts of chloroform and 1 part of ether.

MARTIN STAIN FOR TUBERCLE BACILLI

To the Editor:—Please publish in detail mode of making stains for use in the Martin-Herman Mons method of staining tubercle bacilli. A. R. SMITH, Los Angeles.

ANSWER: The Martin stain consists of two liquids: 1, A mordant solution consisting of a 1 per cent. solution of ammonium carbonate; 2, a stain made by dissolving 3 per cent. of crystal violet (methyl violet, 6 B.) in 95 per cent. ethyl alcohol. These solutions should be kept separately and mixed when wanted for use in the proportion of 3 parts of the mordant to one of the stain. After staining, the specimen is decolorized with 10 per cent. nitric acid in 5 per cent. ethyl alcohol. Crystal violet can be obtained by dealers in bacteriologic supplies.

DELAYED HEALING OF WOUNDS

To the Editor:—What is the reason that in some persons the healing process in cuts, abrasions, etc., is so slow? Take, for instance, the case of a man of 35, in apparent good health, who knocked off a piece of skin from the hand, one-quarter of an inch square. There was at first profuse bleeding and then an oozing of serum for from twenty-four to thirty-six hours. A crust then formed, but on motion the parts cracked, showing a seropurulent fluid beneath. After a week healing commenced and continued. The final stage was a hard corn-like scab which had to be cut like a corn and worn thin, having a smooth scar for a long time. The total time from inception to scar in the individual is from three to four weeks for even the smallest injury. Would vaccine therapy offer any hope of cure and what would be likely to help?

E. W. BURT, Westport, Mass.

ANSWER.—The explanation lies without doubt in two factors: a lack of resisting power on the part of the general system and some local condition in the skin unfavorable to healing. The latter condition may arise from a constitutional peculiarity of the individual's skin or from irritation in consequence of poisons circulating in the blood or, lastly, from repeated local infection. Theoretically, vaccine therapy ought to re-enforce the deficient immunizing action of the blood and favor healing. The vaccine would most appropriately be made from the secretions of the unhealed wound.

Association News

NEW MEMBERS

List of new members of the American Medical Association for the month of May, 1909:

ALABAMA

Downing, J. H., Bessemer.
Smith, J. G., Bankston.
Spotswood, D. J., Mobile.
Wilkinson, H. B., Montgomery.

ARKANSAS

Elton, A. M., Bruno.
McVay, L. C., Marion.
Owens, W. R., Paragould.
Scott, E. E., Magazine.

CALIFORNIA

Bryson, C. W., Los Angeles.
Canney, F. G., San Francisco.
Cross, Hugh, Dunsmuir.
Dameron, J. D., Stockton.
Dolg, R. L., San Diego.
Foster, R. L., San Diego.
Pascoe, E. R., Los Angeles.
Ross, R. O., Fresno.
Steade, J. M., San Diego.
Sylvester, Florence M., Oakland.
Tower, A. M., Lodi.

COLORADO

Fantz, Theresa S., Denver.

CONNECTICUT

Barrett, W. J., New Haven.
Bohannan, C. G., South Norwalk.
Hawkes, W. W., New Haven.
O'Flaherty, E. P., Hartford.
Varlell, A. D., Waterbury.

DISTRICT OF COLUMBIA

Carr, W. B., Washington.
Ruble, W. A., Washington.
Sowers, W. F. M., Washington.
Stewart, J. W., Washington.

GEORGIA

Bridges, D. R., Dawson.
Carter, W. N., Columbus.
Hall, T. H., Macon.
Kinard, J. O., Atlanta.
Wiggins, Lee W., Dexter.

IDAHO

Blitz, Adolph, Boise.
Soderquist, A. R., Idaho Falls.

ILLINOIS

Abelmann, H. W., Chicago.
Beesor, B. B., Chicago.
Berry, F. A., Chicago.
Bobzin, R. R., Shipman.
Christensen, A. H., Chicago.
Duncan, Adelaide, Chicago.
Ford, Charles, Waggoner.
Fuller, E. M., Chicago.
Gilmore, W. H., Mt. Vernon.
Graham, E. A., Chicago.
Halperin, George, Chicago.
Heely, O. J., St. Libory.
Klein, Sidney, Chicago.
Klopper, Zan D., Chicago.
Knap, W. H., Chicago.
Kaufmann, G. L., Chicago.
Lachaine, Edmond, Chicago.
Lambert, O. B., Chicago.
Lentz, Nathan, Chicago.
Lewin, Solomon, Chicago.
Lowell, A. D., Chicago.
McLaughlin, A. H., Aurora.
Murray, W. G., Springfield.
Oliver, N. E., Thornton.
Pollock, D. K., Little York.
Potter, H. E., Chicago.
Richards, R. G., St. Davids.
Scott, O. F., Summit.
Sheldon, A. R., Highland Park.
Summers, A. T., Mattoon.
Trauseau, Gertrude H., Charleston.

INDIANA

Baer, S. W., South Bend.
Engle, Walter C., Indianapolis.
Hirshfield, A. C., Indianapolis.
Hutcheson, W. R., Greencastle.
Michie, Mary H., Vincennes.
Reavis, W. J., Evansville.
Shanklin, V. A., West Terre Haute.
Stallings, F. L., Posey Co.
Stephenson, C. E., Indianapolis.
Sudranski, Charles, Greencastle.

IOWA

Bennett, G. J., Denver.
Best, E. E., Clarion.
Bos, C. N., Pella.
Brackney, H. J., Sheldon.
Bryant, A. J., Blairstown.
Chamberlain, B. H., Wyoming.
Coe, P. W., State Center.
Cross, G. B., Plainfield.
Dunshee, J. D., Woodburn.
Gillmor, B. F., Red Oak.
Grant, A. F., Taylor Co.
Keith, W. E., Lost Nation.
King, J. E., Anamosa.
Klinefelter, L. E., Rockford.
Lass, D. G., Ocheyedan.
Leech, L. J., West Branch.
McLean, J. W., Fayette.
Miller, W. B., Centerville.
Moerke, A. C., Burlington.
Mulnix, J. A., Dows.
Pelletier, D. H., New Hartford.
Peppers, J. L., Goldfield.
St. Clair, F. E. E., Hampton.
Seabloom, J. L., Red Oak.
Smith, J. C., Woolstock.
Stevens, F. A., Belmond.
Tompkins, E. D., Clarion.

KANSAS

Carpenter, C. R., Leavenworth.
Carr, W. A., Junction City.
Dildine, A. R., Portland.
Hill, J. N., Osawatomie.
Longacre, C. E., Westphalia.
Mayfield, Claud, Hutchinson.
Wickersham, E. C., Independence.
Wortman, J. G., Mound City.

KENTUCKY

Biggers, J. A., Louisville.
Coleman, W. H., Louisville.
Cook, C. J., Belmont.
Dunn, J. H., Lee City.
Ellis, J. W., Masonville.
Grant, W. E., Louisville.
Hayden, J. V., Salem.
Keffer, [illegible]
Kieffer, [illegible] ille.
Markwe [illegible]
Onderdonk, W. A., Louisville.
Popham, A. E., Uniontown.
Ridley, J. U., Robards.
Rubel, H. M., Louisville.
White, J. G., Cerulean.
Whitis, Mack, Benge.
Wilson, D. S., Louisville.

LOUISIANA

Chalaron, F. J., New Orleans.
Morey, J. C., Centerville.
Robert, J. J. Jr., Norwood.

MARYLAND

Beitler, F. Y., Halethorp.
Benner, C. M., Taneytown.
Chambers, G. F., Lusbys.
Conradi, F. A., Baltimore.
Diller, C. H., Detour.
Forster, A. M., Towson.
Galloway, G. F., Federalsburg.
Geroghty, J. T., Baltimore.
Haynes, H. H., Baltimore.
Hoag, J. Morley, Baltimore.
Hoff, D. E., Hagerstown.
Johnson, T. B., Frederick.
Johnston, E. H., Baltimore.
Maynard, S. S., Frederick.
Nice, J. A., Lisbon.
DeNoonley, T. F., Frostburg.
Sappington, C. T., Frederick.
Seiss, F. H., Taneytown.
Webster, J. B., Raspeburg.
White, W. W., Baltimore.
Zepp, H. E., Baltimore.

MASSACHUSETTS

Beaulien, E. J., Whitman.
Holden, W. D., Haverhill.
Hollings, Byam, Winthrop.
Jones, J. A., Lynn.
Hurly, E. D., South Boston.
Keegan, C. A., Arlington.
Kinnicutt, Roger, Worcester.
MacDonald, W. C., Malden.
McCaffrey, C. F., Somerville.
Murphy, Anna F., Worcester.
Smith, Myrtle, Worcester.
Smith, R. M., Boston.
Sobotky, Irving, Boston.
Stephens, F. N., Somerville.
Sullivan, J. T., Boston.
Winslow, B. S., New Bedford.

MICHIGAN

Bauch, G. F., Lansing.
Bliss, G. L., Three Rivers.
Braley, F. W., Saranac.
Crane, C. V., Tawas City.
Gustin, J. W., Bay City.
Hotvedt, I. M. J., Muskegon.
Kinsey, F. C., Three Rivers.
McComb, E. V., Menominee.
Munro, D. D., Kinde.
Rutledge, J. C., Detroit.
Sherman, A. T., Detroit.
Trumble, G. W., Bay City.
van Urk, Thomas, Kalamazoo.
Van Zwaluwenburg, J. G., Ann Arbor.

MINNESOTA

Benson, O. O., Sacred Heart.
Christiansen, Jas., Alden.
Dohm, A. J., St. Paul.
Durgin, F. L., Winnebago.
Jellison, E. R., Foley.
Kohler, G. A., Minneapolis.
McDermott, T. E., Minneapolis.
Miller, V. I., Westbrook.
Moen, J. K., Minneapolis.
Smith, M. W., Red Wing.
Stone, J. L., Minneapolis.
Voyer, E. O., Minneapolis.

MISSISSIPPI

Coleman, O. G., Coffeeville.
Cryer, W. H., Columbus.
Stephens, G. W., Meridian.
Weeks, W. H., Doddsville.

MISSOURI

Atkins, W. A., Rogersville
Brewer, Lake, Ridgeway.
Carpenter, G W, Utica
Crank, A C, Pittsville
DeMenil, H. N, St Louis
Guhman, J O, St Louis
Herbst, Frank, Kansas City.
Hooper, C L, Ardmore
Lipsitz, S T, St Louis
Maltby, Burton, Liberty
Morgner, Omar, St Charles
Ryan F M, Quitman
Schwarz, Henry, St Louis
Shelton, W. J, St Joseph
Smith M A, Gallatin
Tabaenie, Maxwell, St Louis
Wolf, A S, St Louis

MONTANA

Arnold M H, Billings
Brasier, O V, Butte

NEBRASKA

Coats A J, Lincoln
Colburn, W O, Stuart
Dishong, G W, University Place
Kelley, Ernest, Norfolk
Morris D F, Lewellen
Rockwell, Orville, College View

NEVADA

Toogood, J E, Virginia City

NEW HAMPSHIRE

Craig, Willie P, Walpole

NEW JERSEY

Bacevycze, A M, Newark
Bennett, J K, Gloucester.
Bullock, E C, Columbus
Calhoun, Charles, Rutherford
Cladek, Walter E, Rahway
Cohn Hermann, Newark
Converse, C B, Jersey City
Culver, G M, Jersey City
Dickinson, F A L, Trenton
Dundan, A H, Plainfield
Dunkel, E K, Jersey City
English, S B, Glen Gardner.
Granger, W R R, Newark
Harden, A S, Newark
Hawke, E S, Trenton
Hicks, W H, Newark
Hood Bruno, Newton
Loper, J C, Bridgeton
Marcy, F W, Camden
Morrill J P, Paterson
Osmun M M Camden
Prickett, E D, Mt Holly
Pyle, W L, Jersey City
Saunders O W, Camden
Smith H S, Newark
Wagner Otto Elizabeth
Walscheid A J, Weehawken
Wilson, H H, Bridgeton

NEW MEXICO

Caulson, Richard, Tucumcari
Herring, B F, Tucumcari

NEW YORK

Abrahams, Robert, New York City
Albones, A W Frankfort
Ambos, C L, New York City
Armstrong, A S, New York City
Auel, C H W, Buffalo
Bailey, F D, Brooklyn
Barringer, T B, Jr, New York City
Beale, A E, Schagliticoke
Becker, J I, Cairo
Becker, LeRoy Cobleskill.
Benedict, A N, Yonkers
Blaisdell, S C, New York City
Bleiman, Asher, New York City
Boeker, Hermann, New York City
Boyd C S, New York City
Brennan, J H, New Rochelle
Caldwell, W E, New York City
Callender, G R, New York City
Carlisle L N Mt Vernon
Carlucci, Francisco, New York City
Chaffe C F, Rochester
Coe, W H Auburn
Demarest, Sylvester, Suffern
Dietrich, A E Bay Shore L I.
Dittelbaum M J, Brooklyn
Egan, C T, New York City
Erdmann A F Brooklyn
Evarts H C, New York City
Frazier, L A, Amsterdam
Freutel, A T, New York City
Gillett, T R, Kingston.
Glogau, Otto, New York City
Goldberg, J M, Brooklyn
Golding, J E, Brooklyn
Gritton, J. F, Brooklyn
Gulle, E B, Utica
Hennington, C W., Rochester
Heydecker, H R, New York City
Hollister, F C, New York City
Hough, W D, Niagara Falls
Howard, Tasker, Brooklyn
John, David, Yonkers
Kane, J J, Binghamton
Lefkowics, Bartholomew, Manhattan
Lewis, J S, Buffalo
Linder, John, Brooklyn
Lord, M S, Schenectady
Macy, Mary S, New York City
Medrick, R F, Port Jervis
Mosk, C H, New York City
Morton, R S, New York City
Motham, L D, Elmira Heights
Neuwelt, Louis, New York City
Palmer, W E, Hornell
Parry, Eleanor, New York City.
Petrone, Ettore, New York City.
Pierce, W R, Amsterdam
Price, J Woods, Saranac Lake
Raabe, Alfred, New York City
Rasbach, F B, Buffalo
Redmond F J, Fillmore
Reed W E, Washingtonville
Riche, Paul New York City
Ringland, J B, Oswego
Rogers, W H, Jr, Brooklyn
Rooker, A M, Niagara Falls
Rose, M C, New York City
Rudisch, Julius, New York City.
Russell S A, Fulton
Sachs, Ernest, New York City
Seymour, Nan Gilbert, New York City
Skinner, B D, Greenport.
Smith, S W, New York City
Snyder, Frederick, Rosendale
Somers, J A, Brooklyn
Squier, H N, Utica
Staebler, D M, Brooklyn
Steensland H S, Syracuse
Stephens, C B, Wallace
Steurer, J A, New York City
Stevens, C T, New Rochelle
Stevens, J W, Brooklyn
Thomas, A R, West Eaton
Wallin, A C, New York City.
Walsh T J, Buffalo
Warner, H S, Brooklyn
Weiher, C L, New York City
Wheeler, J M New York City
White, J S, South Glens Falls
Wilklow, G F, Wurtsboro
Williams, H B, New York City
Wolfert, B E, Brooklyn
Woolsey, L E, Hancock

NORTH DAKOTA

Douglas F A, Fessenden
Harwood C B, Hope
McMurtry, W C, Wolford
Rudell, G L, Plaza

OHIO

Biddle, D H, Athens
Bigelow L L, Columbus
Blair, Thomas Lyons
Carson, A I, Cincinnati
Chambers, J W, Bays
Coburn, R C, Upper Sandusky
Davison O C Bethel
Haas S L, Cleveland
Henning, E R, Bellefontaine
Hyde, A G, Cleveland
Ireton, E C, Marathon
Jewitt R A, Cleveland
Jones T C, Dillonvale
Levenberg, Bernard, Cleveland
McCurdy, L C Coshocton
Ruffin, C A, Louisville
Scarnecchia, Joseph Youngstown
Taylor, W H, Youngstown
Wassermann S, Cleveland

OKLAHOMA

Ames, H B, Burlington
Anderson F A Claremore
Butler, W R, Maud
Gorton Mary L Pawnee
Gray J W, Quinton
Harrington W F Lahoma
McVicker W D Garber
Neely, J M Oklahoma City
Rutherford Lafe, Sapulpa

OREGON

Baud A W Portland
Robinson David, Mosier
Schleef, H C Cottage Grove
Sether, A F., Roseburg

PENNSYLVANIA

Aiken, T G, Berwyn
Aydelotte, J T, Philadelphia
Bachman, H S, Philadelphia
Bachman, M H, McKeesport.
Bang, E O, South Canaan
Beale, J. E, Coal Dale
Beyer, W F, Punxsutawney.
Bishop, A L, Philadelphia
Borzell, O F, Philadelphia
Borzell, F F, Cressman
Bower, A E, Ford City
Bradley, C D, Ford City
Brundage, R A, Pittsburg
Brunner, H P, Reading
Buka, A J, Pittsburg
Butt, W R, Philadelphia
Cattin, H J, Johnstown
Cole T P, Greensburg
Collins, James, Bristol
Creighton, W J Philadelphia
Crist, F G W, Lisburn
Dalsimer, Leon, Philadelphia
Davidson, C H, New Salem
Delaney, C W, Altoona
Dillie, G W, Cooperstown
Dolley, G C, Philadelphia
Donaldson J S, Bellevue
Dorrance, G M Philadelphia
Dotterer, C B Boyertown
Dunn L S, Chester
Eastman, Henry Pittsburg
Field, G B Wood Easton
Frescoln, L D Philadelphia
Getty, Mary Philadelphia
Glenn, T O, Bradford
Glenn, W S, State College
Grier, G W, Pittsburg
Grime, R T, Philadelphia
Gummey, F B, Philadelphia
Hamilton, S S, Punxsutawney
Harshberger A S, Lewistown
Hofkin, A F, Philadelphia
Hope, P T Mercer
Hostetter J E, Gap
Howell, W H, Altoona
Hunter, J W, Philadelphia
Ingham, S D Philadelphia
Judson, C F, Philadelphia
Keech, H B Philadelphia
Keller, H M Hazleton
Kirk, C B, Fishertown
Kramer, J G Pottsville
Lane, D W Philadelphia
Leaman, Rosh Philadelphia
Lehman, C G Newberry
Lehman J R Mountville
Longshore, J B Philadelphia.
Lurting, C W, Pittsburg
Markel, J C Pittsburg
McCord W C, Mars
MacLachlan A A, Pittsburg
McDowell, Katharine R, Philadelphia
McIntire O W, Howard
McLaughlin, C M Freeport
McLaughlin J J Philadelphia
McNaul, W J Philadelphia
Miller E B, Philadelphia
Miller, H E, Milroy
Moore, E W Franklin
Neff J S Philadelphia
Newton, R D Philadelphia
O'Connell J A, Philadelphia
Ohlman I L, Pittsburg
Palmer, C L, Mt Lebanon
Pancoast I W Philadelphia
Pease, T N, Philadelphia
Plank, E R, Carlisle
Podolski L A Philadelphia
Randall, W F Dushore
Ray, W B Glenshaw
Read, John McKeesport
Reese, G W Mahanoy City
Reid R A, Zelienople
Riethmuller, A H Millvale
Ruffell, C E Philadelphia
Sands I S, Bristol
Scheehle J E Philadelphia
Schleiter H G, Pittsburg
Schoening J J Philadelphia
Shearer C H, Reading
Shoenthal H I New Paris
Smith C D Philadelphia
Smith, E L, Schellburg
Stein, N H, Middleport
Stewart, H H Friedensburg
Taylor, W H, Irwin
Thomas Anne H Philadelphia
Travis G S, E Stroudsburg
Tull, M G, Philadelphia
Turner, Annie L Philadelphia
Tuttle, Lucius, Philadelphia
Umstad, G B R, Phoenixville
Van Buskirk, W L, Scranton
Wallace N C, Dover
Weakley, W. S, York
Wetmore, S S P, Morrisville
Wilson, L F, Greensburg
Wilson, R L, Jeannette
Woods, W. W, Rixford

RHODE ISLAND

Heussey, J P, Providence.
Palmer, H G, Providence
Risk, W A, Providence

SOUTH CAROLINA

Blakely, S F, Spartanburg
Doyle, T C, Orangeburg
Williams, H B, Honea Path

SOUTH DAKOTA

Miller, V M, Mellette
Whiteside, Jesse D, Aberdeen.

TENNESSEE

Anderson, C. F, Nashville
Bryon, O N, Nashville
Chanceller, S E, Elbridge
Foster, J I, Huntsville
Hayward, O M, Chattanooga.
Macon, R B, Clarksville
Malone, F M, Capleville
Oppenheimer, R P, Knoxville.
Phillips, T L, Newland

TEXAS

Baird, T H, Otto
Barron, W P, Carmona
Bland, L F, Port Arthur
Bledsoe, M F, Rockland,
Draper, R H, Sparta
Gibner, G P., Knox City
Hall, H S, Newton
Janes, A M, Auson
LeGrand, G F, Hereford
Markham, L N, Longview.
Martin, J E, Bruceville
McMeans, A A, Webb Co
Miller, J. R, Port Bolivar.
Moore, T. F, Galveston
Porch, C L, Glazier
Roberts, J Thomas, San Marcos
Smith, W R, Lassater
Spurgin, A M, Dallas
Warren, C D, Houston
Wilson, R G, Odessa
Wilson, W T, Navasota
Wright, J B, Princeton
Young, J W, Roscoe

UTAH

Allison R S, Clear Creek
Moormeister, F., Salt Lake City.
Warner, W. E, Spanish Fork.

VERMONT

Clark, F E, Burlington
Eastwood, J S, Brandon.
Norris, F W, Swanton
Smith, R E, Rutland
Shea, D A, Burlington.

VIRGINIA

Caldwell, J K, Galax
Catts S R, National Soldiers Home
Christian, W G, Gordonsville
Compton, R F, Charlottesville
Copeland, E V, Round Hill
Crenshaw, J L, Charlottesville
Culpepper, J H, Norfolk
Faily, J E, Charlottesville
Eastham, Granville, Rapidan
Garnett, R W Charlottesville
Hinchman J D, Richmond
Kern, R L, Richmond
Kerns W W, Bloxam
Labenberg C A, Richmond
Lile, Samuel, Lynchburg
Marchant, C D, Harmony Village
Peyser, Mark W, Richmond
Strother W J, Culpeper
Taylor, Philip, Richmond
Tucker, R D, Powhatan

WASHINGTON

Appleton, T J, Seattle
Belden G G, Spokane
Brandt, A L, Mt Vernon
Frost W S, Spokane
Schlegel, H E, Spokane
Schwabland W W, White Bluffs
Smith, Carroll, Spokane

WEST VIRGINIA

Donehoo, R S, Fairview.
Easley, E M, Bluefield
Fulton, W S, Wheeling
Hannah, U H, Spruce
Johnson, I B, Laneville
Kerr, W W, Volga
Lucas, J B, Maybeury
Martin, C A, Harvey
Miller, W D, Weavel
McLaughlin, J M, Webster Springs

G. R., Flemington.
W. H., Masontown.
C. E., Wheeling.
B. F., Terra Alta.
ey, D. W., Clendenin.
Spilman, J. W., New Cumberland.
Stone, S. M., Tomsburg.
Swimley, G. W., Bunker Hill.
Trach, J. M., Farmington.
Werner, H. R., Thomas.
Woofter, J. V., Leopold.

WISCONSIN

Baker, J. C., Hawkins.
Beebe, C. M., Sparta.
Bonesein, G. F., Detroit Harbor.
Cahoon, Roger, Baraboo.
Fox P. A., Beloit.
Higgins, E. G., Melrose.
Lambeck, F. J., Milwaukee.
Loge, E. S., Milwaukee.
Lundmark, L. M., Ladysmith.
Miller, W. S., Madison.
Nicholson, J. D., Balsam Lake.
Nowack, L. H., Watertown.
O'Connell, J. E., Menasha.
Patek, A. J., Milwaukee.
Stephenson, W. L., Ladysmith.
Stoddard, C. H., Milwaukee.
Trankle, H. M., Bloomer.

WYOMING

Hawk, J. W., Green River.
Richards, J. R., Thermopolis.
Shingle, J. D., Cheyenne.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

ARIZONA: Phoenix, July 5-6. Sec., Dr. Ancil Martin.

ARKANSAS HOMEOPATHIC: Little Rock, July 13. Sec., Dr. P. C. Williams, Texarkana.

COLORADO: Denver, July 6. Sec., Dr. S. D. VanMeter, 1723 Tremont Place.

CONNECTICUT: Regular, New Haven, July 13-14. Sec., Dr. Charles A. Tuttle, 196 York St.; Homeopathic, New Haven, July 13. Sec., Dr. Edwin C. M. Hall, 82 Grand Ave.; Eclectic, New Haven, July 13. Sec., Dr. T. S. Hodge, 17 Main St., Torrington.

DELAWARE: Dover and Wilmington, June 15-17. Sec., Dr. Henry W. Briggs, Wilmington.

DISTRICT OF COLUMBIA: Washington, July 13-16. Sec., Dr. George C. Ober, 210 B St., S. E.

ILLINOIS: Coliseum Annex, Chicago, June 16-18. Sec., Dr. J. A. Egan, Springfield.

INDIANA: 120 State House, Indianapolis, July 13-15. Sec., Dr. W. T. Gott.

IOWA: Des Moines, June 22-24. Sec., Dr. Louis A. Thomas, Des Moines.

MAINE: State House, Augusta, July 13-14. Sec., Dr. Frank W. Searle, 806 Congress St., Portland.

MARYLAND: Baltimore, June 15-18. Sec., Dr. J. M. Scott, Hagerstown. Homeopathic: Baltimore, June 15-17. Sec., Dr. Joseph S. Garrison, 848 W. North Ave.

MINNESOTA: Minneapolis, June 15. Sec., Dr. W. S. Fullerton, St. Paul.

NEW JERSEY: State House, Trenton, June 15-16. Sec., Dr. J. W. Bennett, Long Branch.

NEW HAMPSHIRE: Concord, July 2-3. Regent, Mr. H. C. Morrison.

NEW MEXICO: Santa Fe, July 12. Sec., Dr. J. A. Massie.

NEW YORK: Albany, June 22-25. Chief of Examinations Division, Dr. Charles F. Wheelock, Albany.

NORTH DAKOTA: Grand Forks, July 6-8. Sec., Dr. H. M. Wheeler.

OKLAHOMA: Guthrie, July 13. Sec., Dr. Frank P. Davis, Enid.

OREGON: Portland, July 6. Sec., Dr. R. C. Coffey.

PENNSYLVANIA: Philadelphia and Pittsburg, June 22-25. Sec., Mr. Nathan C. Schaeffer, Harrisburg.

RHODE ISLAND: Room 313, State House, Providence, July 1-2. Sec., Dr. Gardner T. Swarts, 315 State House.

SOUTH DAKOTA: Watertown, July 14-15. Sec., Dr. H. E. McNutt, Aberdeen.

TEXAS: Cleburne, June 22-24. Sec., Dr. M. E. Daniel, Honey Grove.

UTAH: Salt Lake City, July 5. Sec., Dr. G. F. Harding, 310 Templeton Bldg.

VERMONT: Burlington, July 13-15. Sec., Dr. W. Scott Nay, Underhill.

VIRGINIA: Richmond, June 22-25. Sec., Dr. R. S. Martin, Stuart.

WASHINGTON: Seattle, July 6-8. Sec., Dr. Kenneth B. Turner, Walker Bldg.

WEST VIRGINIA: Charleston, July 13-15. Sec., Dr. H. A. Barbee, Point Pleasant.

WISCONSIN: Madison, July 13-15. Sec., Dr. J. V. Stevens, Jefferson.

WYOMING: Laramie, June 23-25. Sec., Dr. S. B. Miller.

Kansas February Report

Dr. R. A. Light, secretary of the Kansas Board of Medical Registration and Examination, reports the written examination held at Topeka, Feb. 9, 1909. The number of subjects examined in was 10; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 22, of whom 21 passed and 1 failed. The following colleges were represented:

PASSED College	Year Grad.	Per Cent.
Northwestern University Medical School	(1902)	85.
Hahnemann Medical College and Hospital, Chicago	(1908)	84.
Indiana University	(1908)	81.
Keokuk Medical College, Coll. of P. and S.	(1908)	75, 79, 82
Kansas Medical College	(1908)	80, 81, 83
University of Kansas	(1906) 85; (1908)	89.
St. Louis College of Physicians and Surgeons	(1908)	80.
Ensworth Medical College	(1906) 80; (1908)	76, 81, 82.
University Medical College, Kansas City	(1907)	77.
Barnes Medical College	(1908)	84.
Kansas City Homeopathic Medical College	(1896)	76.
Creighton Medical College	(1906)	80.
University of Bukharest, Roumania	(1901)	82.
FAILED		
Louisville and Hospital Medical College	(1908)	72.5

Oklahoma January Report

Dr. Frank P. Davis, secretary of the State Board of Medical Examiners of Oklahoma, reports the written examination held at Chickasha, January 12, 1909. The number of subjects examined in was 15; total number of questions asked, 150; percentage required to pass, 70. The total number of candidates examined was 31, of whom 25 passed and 6 failed. The following colleges were represented:

PASSED College	Year Grad.	Per Cent.
Birmingham Medical College	(1906)	88.
University of Arkansas	(1908)	80.
Atlanta College of Physicians and Surgeons	(1902)	83.
Harvey Medical College	(1904)	83.
Hering Medical Colege	(1903)	87.
College of Phys. and Surg., Chicago,	(1904) 92, (1907)	89.
Medical College of Indiana	(1899)	88.
University of Kansas	(1907)	90.
Hospital College of Medicine, Louisville	(1900)	78.
Kentucky School of Medicine	(1897)	82.
University of Louisville	(1904) 72,, (1908)	74.
Boston University	(1908)	85.
Marion-Sims-Beaumont College of Medicine	(1903)	84.
St. Louis University	(1908)	83.
University Medical College, Kansas City	(1908)	84.
Barnes Medical College	(1904)	88.
Creighton Medical College	(1905)	88.
Cleveland Homeopathic Medical College	(1906)	82.
Knoxville Medical College	(1908)	77.
Meharry Medical College	(1908)	80.
Vanderbilt University	(1904)	81.
University of West Tennessee	(1908)	71.
University of Texas	(1908)	90.
FAILED		
Chicago College of Medicine and Surgery	(1908)	86.*
Kansas Medical College	(1900)	73.*
Louisville and Hospital Medical College	(1908)	73.*
University of Louisville	(1907)	65.
Barnes Medical College	(1899)	56.
Tennessee Medical College	(1900)	63.

* Failed to receive 50 per cent. in one or more branches.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

McCormack in Missouri

Dr. McCormack has terminated a month of remarkably successful meetings in Missouri, having given his entire time during May to this work. The press notices received show unusual interest, while the attendance at practically all of the meetings was large and enthusiastic. Extracts from a few of the newspaper comments follow:

The Maryville *Tribune*, besides giving an extended account of the lecture, said editorially: "Monday was a great day for the physicians of Maryville and those who heard Dr. McCormack speak. Startling truths, clothed in chaste words and phraseology, sent fathers and mothers home to think about these evils of society which are best judged from the physician's standpoint. The one great proof of the facts which he uttered was the spirit of unselfishness in which advice was given, in which he showed what the medical profession has, can and will do for the human race. . . . Dr. McCormack's visit to Maryville did good which can never be estimated. It set people to thinking, and in doing so accomplished that to which many men in carrying on a work fail to attain."

The Maryville *Republican* says: "One good result coming from the meeting was the referring of the matter of appointing a committee to investigate the public health conditions of Maryville to the mayor and city council. The council was requested to appoint a committee to investigate the probable sources of menace to the health of the city. . . . Probably not in years has such an address caused so much thinking on

the part of the people of Maryville. Startling statements proving the great and common disregard for health surprised the big audience."

The *Chillicothe Constitution* says editorially: "The business of the physician has reached a higher level than that of merely doctoring symptoms and alleviating pain. . . . The studious, honest physician has progressed beyond this stage. He is not only a healer, but an educator. He looks over and beyond the dollar and exercises the part of a humanitarian and takes to himself the burden of being to a certain extent his brother's keeper. It is much better that disease should be prevented than that it should be cured. It is much more beneficial to the people of America that they know how to observe the laws of health and sanitation and that they preserve their bodies from contagion and infection than that new methods of curing illness should be discovered. The Chillicothe physicians are to be congratulated on having secured the services of Dr. McCormack as a lecturer here, and on the broad spirit of progressiveness that leads them to take part in such a movement as Dr. McCormack represents." The *Constitution* also says editorially, in a later issue, under the title "Needed Health Reforms:" "The criticisms leveled against the country at large, the state of Missouri and the Missouri municipalities regarding their neglect of the public health, uttered by Dr. J. N. McCormack of the American Medical Association in Chillicothe recently, were not only timely, but were amply justified." The editorial then comments on the need of a vital statistics law in Missouri and urges the adoption of such a statute. It is gratifying to note that in the last few weeks a thoroughly satisfactory vital statistics law has been adopted in Missouri, due largely to the efforts of the organized medical profession of the state.

At Kirksville, Mo., the local press gave lengthy notices of the meetings, both before and after, and said: "Dr. McCormack is a forceful speaker and held his audience in the closest attention with his presentation of naked truths and facts that made the average man and woman think that perhaps this manner of physical life could be improved on." Editorially, the *Daily Express* says: "Dr. McCormack's recent lecture has stirred things up in this old town. The lectures served as an eye opener on some things."

The Hannibal *Morning Journal* says: "Dr. McCormack is delivering these timely health talks in cities all over the country and is doing a great deal of good. . . . Last night a magnificent audience, composed of representative citizens of this community, assembled at the high school auditorium to listen to a masterly address. Dr. McCormack is a splendid speaker, and held the undivided attention of the audience from the beginning to the close of his remarks."

The Sedalia *Democrat-Sentinel* says: "Dr. McCormack's talk was interesting because he spoke the truth, because he spoke entertainingly and convincingly, giving facts and figures to prove his arguments, because he struck out fearlessly, exposing sins of omission and commission, hitting a head wherever he saw it, then pouring the oil of kindness and humanity on the wound he was compelled to make. His object in making these exposures was not merely to criticize, but primarily to bring the facts before his audience so that they could think of and correct them. . . . He held the entire attention of his audience for over two hours."

The above are only a few extracts from a large number of newspaper reports received. The work being done in Missouri is of great value and will produce results of undoubted benefit to the public.

Unqualified Practitioners in England

The interest taken by the medical profession of Great Britain in the question of the practice of medicine by unqualified persons was commented on at length in a previous number of THE JOURNAL. That this interest is sustained and is taking the direction of practical investigation is shown by the circular recently issued to medical officers of health by the local government board, calling attention to the resolutions adopted by the General Medical Council of the British Medical Association, and stating that before taking any steps in the matter the lord-president of the local government board wishes to obtain definite information regarding the extent to which medical practice is carried on by unqualified persons. Local health officers are therefore asked to report whether the practice of medicine and surgery by unqualified persons is increasing and whether the health of the public in the district is affected thereby. The collection of data along this line will undoubtedly furnish much interesting and valuable information.

Marriages

HENRY ANTHONY STRECKER, M.D., to Miss Nellie Marie Carroll, both of Philadelphia, Pa., June 2.

FRANK G. CROWELL, M.D., to Miss Nettie Cratty, both of Rochelle, Ill., May 19.

ROBERT L. BONE, M.D., Madisonville, Ky., to Miss Adele Lewis, at Baltimore, May 28.

ELIOT BISHOP, M.D., Brooklyn, N. Y., to Miss Pearl Rogers of Wilkes-Barre, Pa., June 1.

HARRY J. WILLEY, M.D., Lawrence, Kan., to Miss Mabel Green of Thayer, Kan., May 18.

EDWARD MEYER, M.D., New York City, to Miss Margaret E. McLaurine, at Baltimore, May 21.

EDGAR H. LITTLE, M.D., to Miss Gertrude Cline, both of East St. Louis, Ill., at Vandalia, Ill., May 24.

EDWARD MITCHELL VAUGHAN, M.D., to Miss Marie Hepburn Nowland, both of Middletown, Del., June 1.

G. MEMORY CHAPMAN, M.D., Logan's Store, N. C., to Miss Annie B. Ford of Hickory, N. C., May 19.

WILLIAM MCCULLY JAMES, M.D., Ancon, Panama, to Miss Mary Gurley McCulloch, at Ancon, May 1.

SAMUEL J. SMART, M.D., Logansport, La., to Miss Cora Wallace of Centennial, Texas, at Shreveport, La., May 23.

PERRY C. BENTLE, M.D., Greensburg, Ind., to Miss Pearl Booth of Rush county, Ind., at Rushville, Ind., May 28.

Deaths

Henry Chrysostom Keenan, M.D. College of Physicians and Surgeons, New York City, 1895; a member of the Medical Society of the State of New York; president of the Brooklyn Gynecological Society; associate gynecologist to St. Mary's General Hospital, and gynecologist to St. Mary's Maternity Hospital; a police surgeon of Brooklyn for ten years; died in the Cumberland Street Hospital, Brooklyn, June 1, as the result of injuries received in a runaway accident received an hour before, aged 36.

Philo D. St. John, M.D. College of Physicians and Surgeons, New York City, 1883; formerly surgeon to the Rock Island System at Wichita, Kan.; a member of the Kansas State Board of Health in 1896 and 1897; from 1892 to 1896 city physician of Wichita; and a member of the staff of the Wichita and St. Francis hospitals; died at his home in Wichita, May 23, from accidental poisoning by carbolic acid, aged 57.

John T. Binkley, M.D. Pennsylvania Medical College, Philadelphia, 1852; of Evansville, Ind.; for many years a member of the American Medical Association; some-time professor of physiology in the Hospital College of Medicine, Evansville; was found dead in the Wellington Hotel, Chicago, June 2, aged 82, from the effects of a gunshot wound of the skull, believed to have been inflicted by a thief.

John Alexander Geisendorffen, M.D. Marion-Sims Medical College, St. Louis, 1891; Jefferson Medical College, Philadelphia, 1893; a member of the American Medical Association and Pacific Coast Association of Railway Surgeons; local surgeon to the Oregon Railway and Navigation Company at The Dalles, Ore.; died in St. Vincent's Hospital, Portland, Ore., May 26, from meningitis, aged 43.

Martin Henry Luken, M.D. Rush Medical College, Chicago, 1873; a member of the American Medical Association, Chicago Pathological Society and German Medical Society; for many years attending gynecologist to St. Elizabeth's Hospital and a member of the staff of the Norwegian Lutheran Tabitha Hospital, Chicago; died at the home of his brother in Chicago, June 5, aged 58.

Arthur M. Thome, M.D. Rush Medical College, Chicago, 1851; assistant surgeon in the Army during the Civil War, and later superintendent of the U. S. Marine Hospital, Keokuk, and professor of anatomy in Keokuk Academy; a minister in the Congregational church since 1866; died at his home in Chicago, May 28, aged 86.

Elizabeth D. Kane, M.D. Woman's Medical College of Pennsylvania, Philadelphia, 1883; a member of the American Medical Association; who confined her practice to the poor at her home in Kane, Pa.; prominent in educational, temperance and philanthropic affairs; died at her home in Kane, May 25, aged 73.

Floriman James Taylor, M.D. Rush Medical College, Chicago, 1881; of Pittsfield, Maine; a member of the Maine Medical Association, and secretary of the Board of U. S. Pension Examining Surgeons for Somerset county; died at the home of his mother in Drayden, Maine, May 24, from pneumonia, aged 54.

Charles Ellery Stedman, M.D. Harvard Medical School, Boston, 1865; a member of the Massachusetts Medical Society; from 1861 to 1865 assistant surgeon in the U. S. Navy; and visiting surgeon to the Boston City Hospital from 1872 to 1886; died at his home in Brookline, Mass., May 24, aged 78.

George R. Pattillo, M.D. Medical College of Georgia, Augusta, 1876; for many years a member of the state and national medical associations; and formerly local surgeon for the Georgia Railroad at Culverton, Ga.; died at his home in Camak, Ga., May 23, from pneumonia, aged 58.

George O. Johnson, M.D. University of Maryland, Baltimore, 1869; of Fort Cobb, Okla.; a member of the American Medical Association; a member of the senate in the first and second legislatures of Oklahoma; died in Guthrie, February 10, from asphyxiation by natural gas, aged 63.

William S. Huber, M.D. University of Pennsylvania, Philadelphia, 1888; president of the select council of Lebanon, and of the Union Fire Company; a member of the surgical staff of the Good Samaritan Hospital; died at his home in Lebanon, May 25, from cerebral hemorrhage, aged 43.

Thales Irving Stanton, M.D. University of Vermont, Burlington, 1877; New York University, New York City, 1878; for thirty years a practitioner of Baltic, Conn.; died suddenly at his home in Franklin, Conn., May 26, from heart disease, aged 60.

John J. Ward, M.D. Albany (N. Y.) Medical College, 1869; a member of the Medical Society of the State of New York; and for more than thirty years health officer of Ellenville, N. Y.; died at his home, May 22, from asthma, aged 75.

Henri Charles Gunkel, M.D. Eclectic Medical Institute, Cincinnati, 1859; for many years president of a bank of Newport, Ky.; died at his home in Newport, May 24, from cerebral hemorrhage, aged 83.

Alexander Leslie McCormack, M.D. New York University, New York City, 1882; for twenty-two years a practitioner of East Boston; died at the home of his brother in Roxbury, May 25, aged 53.

Lucius Josiah Thayer, M.D. Long Island College Hospital, Brooklyn, N. Y., 1895; physician of the Shawmut Company, Elbon, Pa., for several years; died in Crenshaw, Pa., May 28, from cocain poisoning.

Richard R. Thompson, M.D. Reform Medical College, Macon, Ga., 1854; a lieutenant in the Confederate service during the Civil War; died at his home in Cedartown, Ga., April 10, from influenza, aged 77.

Henry T. Cotton, M.D. Medical College of Indiana, Indianapolis, 1875; for fifty years a practitioner of Boone county, Ind.; died at his home in Zionville, May 29, from cerebral hemorrhage, aged 75.

Thomas L. Browne, M.D. McGill University, Montreal, 1881; for many years a medical officer of the Quebec militia; died suddenly at his home in Richmond, Que., May 26, from heart disease, aged 57.

John D. Sherer, M.D. University of Pennsylvania, Philadelphia, 1880; a member of the Medical Society of the State of New York; died at his home in Waterford, May 25, aged 52.

George Aldomer Cox, M.D. Albany (N. Y.) Medical College, 1868; a veteran of the Civil War; died suddenly at his home in Albany, May 21, from angina pectoris, aged 63.

Thomas Johnson Fain, M.D. Hospital College of Medicine, Louisville, 1897; a member of the Montana State Medical Association; died at his home in Norris, May 29, from tuberculosis, aged 37.

Leonard C. Whitford, M.D. Bennett Medical College, Chicago, 1870; for nearly thirty years a practitioner of Seattle, Wash.; died at his home May 26, aged 72.

Whitfield Murphey Buie, M.D. University of Louisville (Ky.), 1871; died at his home in Mertens, Texas, May 28, from cirrhosis of the liver, aged 61.

Reuben Goucher, M.D. American Medical College, Eclectic, Cincinnati, 1854; formerly of Molalla, Ore.; died at his home in Mulino, Ore., April 19, aged 76.

John Frederick Foard, M.D. Jefferson Medical College, Philadelphia, 1847; died at his home in Statesville, N. C., May 13, from cholera morbus, aged 82.

Gabriel Henry Bane, M.D. Medical College of Ohio, Cincinnati, 1897; died recently at his home in Orangeburg, Ky., from tuberculosis, aged 39.

Thomas Perry Robosson, M.D. University of Maryland, Baltimore, 1859; died at his home in Flintstone, Md., May 28, from paralysis, aged 75.

James B. Womack, M.D. University of Tennessee, Nashville, 1891; died at his home in Baucom, Tenn., May 25, from tuberculosis, aged 45.

Edward H. Graves, M.D. Missouri Medical College, St. Louis, 1878; died at his home in Boody, Ill., May 14, from appendicitis, aged 59.

George C. Pitzer, M.D. Eclectic Medical Institute, Cincinnati, 1866; died at his home in Los Angeles, Cal., May 10, aged 74.

Isadore L. Meyer (license, Kan., 1903); of Hiawatha, Kan.; died suddenly in Oneida, Kan., May 8, from angina pectoris, aged 58.

Marvin W. Cobb (registration, Ohio, 1884); died at his home in Fredonia, N. Y., May 19, from pericarditis, aged 63.

Henry Nebeker, M.D. Jefferson Medical College, Philadelphia, 1876; died at his home in Clinton, Ind., May 25, aged 63.

Society Proceedings

COMING MEETINGS

American Medical Association, Atlantic City, June 8-11.

American Ophthalmological Assn., New London, Conn., July 14-15.
American Orthopedic Association, Hartford, Conn., June 14-16.
Idaho State Medical Association, Seattle, Wash., July 19.
Maine Medical [illegible] and, June 16-17.
Massachusetts [illegible] oston, June 15-16.
New Jersey Me[illegible] May, June 23-25.
Medical Society of the State of North Carolina, Asheville, June 15.
Washington State Medical Association, Seattle, July 20.
Wisconsin State Medical Society, Madison, June 30-July 2.

AMERICAN PEDIATRIC SOCIETY

Annual Meeting, held at Lenox, Mass., May 27-28, 1909

The President, Dr. Charles P. Putnam, Boston, in the Chair

The officers elected for the ensuing year were named in The Journal last week in the department of General News and comment.

President's Address: State Care of Children

Dr. Charles P. Putnam, Boston, urged the members of the society to take up a share of the work of the public institutions for children in their respective communities. These institutions, he said, were in fact great hospitals for chronic patients. The state's children he considered were juvenile offenders, truants, or dependent and neglected children, who should not be pictured as being on the whole healthy and normal. He described in detail the work done along these lines in Boston, and said he thought that the pediatrists were specially qualified by experience and training for this work, and he considered it incumbent on them to take up their share of the work of looking after these unfortunate children.

The Position and Work of the American Pediatric Society Toward Public Questions

Dr. Thomas Morgan Rotch, Boston, appealed to the members of the society to aid by their influence the safeguarding of early life. He stated that the chief point which we should aim at would be to persuade the enthusiasts who were doing such good work all over the country in connection with the different phases of early life to understand that they did not

know sufficiently all the different sides of the various questions connected with childhood, to allow them to control all the work themselves. He stated that the many workers who were trying to reform the laws in connection with child labor should understand that their great efforts were appreciated by the medical profession. He, however, had told them it was their province to drag crime out into the broad daylight, by crime meaning the unnecessary and cruel ill-treatment of children, by not legislating for them in a way that would protect them during the formative period of life. In the previous meeting at Chicago, he explained to them that when these children had been rescued from the mills, sweatshops and various kinds of labor, which they were made to perform, before they were ready for it, it was then the province of the pediatrists to decide what these children were able to do. After this had been decided it was the province of the legal profession to inform the legislators what laws should be made for the preservation of child life in the sense of the child's health. He said that this same reasoning applied to those who had charge of the grading of schools and kindergartens and also of the physical sports of both boys and girls during their different stages of development. He explained that the old methods of determining at what age a child should be in the various grades in school and when he should work, for instance, in the mills, had mostly depended on chronologic age, and, again, as to height and weight. Children differed much, even though they were of the same age, in both physical and mental development, and judging development by chronologic age, must be very misleading. For the last three or four years Dr. Rotch had been endeavoring to obtain some more exact index, not of chronologic age, but of development, with the intention of thus deciding when a child should work in the mill by determining whether he had the proper strength derived from a proper development for such work. He presented what he called an anatomic index. He said that the development of the epiphyses presented an important part of a child's development so far as strength was concerned, and so far as showing what stage of development he was in. The epiphyses could be studied in all the joints—shoulder, elbow, knee and ankle—and very fine changes occurred in these joints. The joint which was easiest to read and in that sense most practical for forming an anatomic index was the wrist. In the majority of cases a normally developed wrist represented a normal development of the other joints. This development could be studied in successive grades from birth to 14 years of age by making use of the appearance of the osseous centers of the carpal bones and of the epiphyses of the radius and ulna. A Roentgen-ray picture could be taken of the wrist; this picture would represent a certain stage of development. This classification could be used for all ages, and in this way we could determine whether a child was ready to enter a kindergarten; or in which grade of the school he could be placed; or to what strain in athletic contests he could be allowed to go, and in what form of laborous work he might be employed. The influence of the society should be brought to bear on educators as well as on the child labor committee to induce them to look at the work which they were engaged in from some other point besides that governed by their own especial ideas and the lines in which they were working.

A Report on the Medical Work in the Juvenile Court of Chicago

DR. F. S. CHURCHILL, Chicago, presented this report, which is based on the examination of 2,700 children, appearing before the Juvenile Court of Chicago during the last year; divided into the dependents and delinquents—dependent meaning one with no or ineffectual home care and delinquent meaning one who has transgressed the law. His analysis according to nationality showed 77 per cent. of foreign-born parentage; in proportion to the total population, the Polish lead. He examined as to the abnormalities of these children, paying especial attention to the height, weight and chest growth and the condition of the tonsils and adenoids, the condition of the eyes and ears, the condition of the teeth, heart and lungs, skin, and the frequency of venereal disease. The investigation showed little organic disease among these children. The striking data were the high percentages of carious teeth, enlarged tonsils and cervical glands and defective eyesight, and the frequent occurrence of gonorrhea among the girls. Both boys and girls during the early years ran pretty closely to the normal, though a little below; among the delinquents they were very much below the normal, showing that the strain and stress of life that these children led began to tell on them at about the age of puberty. An exception to this general observation was the weight of the 16-year-old girls, who were shown to be 20 pounds heavier than normal girls and much better developed.

(To be continued)

ASSOCIATION OF AMERICAN PHYSICIANS

Twenty-fourth Annual Meeting, held at Washington, D. C., May 11-12, 1909

(Continued from page 1876)

SYMPOSIUM ON TUBERCULOSIS

The Cutaneous Tuberculin Test

DR. LAWRASON BROWN, Saranac Lake, N. Y.: Much work needs to be done with the cutaneous test; it should not be pronounced negative until at least 4, or better 7 days, have elapsed. The old tuberculin should be used, and a 25 per cent. solution is probably as efficient as stronger solutions, but if the test is negative with a 25 per cent. solution, the full strength should be used for the second inoculation. Failure to react to the cutaneous test does not absolutely exclude reaction to the subcutaneous, nor does reaction to the cutaneous test indicate that reaction to the subcutaneous test will always occur. It is difficult to judge of the prognosis from the cutaneous test. Some serums, especially those from patients treated with higher doses of tuberculin, or from animals with high agglutinative powers, when mixed with weak dilutions of tuberculin, tend to retard the cutaneous test.

Sensitization in Tuberculosis

DR. V. C. VAUGHAN, JR., Detroit: Sensitization is an important factor in tuberculosis. A positive reaction following the first instillation of tuberculin into the conjunctival sac is a strong confirmatory evidence of the existence of tuberculosis. A negative reaction following the first instillation of tuberculin into the conjunctival sac is of no value in determining the presence or absence of tuberculosis. A reaction of local sensitization obtained in an eye unaffected by previous instillation is strong evidence against the presence of tuberculosis. Failure to obtain a reaction of local sensitization in an eye unaffected by previous instillation is of no value in the diagnosis of tuberculosis. The treatment of pulmonary tuberculosis by cleavage products obtained from the bacillus itself has been followed by temporary improvement and arrest in certain cases.

The Influence of the Ingestion of Dead Tubercle Bacilli on Infection

DRS. M. J. ROSENAU and JOHN F. ANDERSON, Washington, D. C.: This is in the nature of a preliminary note. We have made some experiments to determine whether the ingestion of dead tubercle bacilli has any influence on subsequent infection. Our first series of experiments was done on guinea-pigs. At present we are carrying on experiments on two other species of animals. Of course, it is well-established that the injection of dead bacilli into animals is followed by local or general results, depending on the number injected, but whether the ingestion of dead tubercle bacilli has any influence is not so clearly established. In the first series we took 100 guinea-pigs and divided them into two lots. To 50 we fed dead bacilli for sixty days. At the end of that time the entire 100 were given large doses of live bacilli, and autopsies performed as soon after death as possible. It was found that on the average those that had been fed with dead bacilli died in 108 days; the controls in 113 days. This question is of practical importance, because in pasteurized milk we frequently ingest

large numbers of dead tubercle bacilli; and also in European countries tuberculous meat is sold, under official supervision, at a lower price. If the ingestion of such material would have any influence on subsequent infection, of course it is a matter of importance to determine the fact, and we hope we may be able to arrive at some definite conclusion on this subject when our experiments are completed.

An Index to Tuberculin Treatment in Tuberculosis by the Minimal Cutaneous Reaction Method

Drs. W. C. White, D. A. L. Graham and K. H. Van Norman, Pittsburg: In a recent paper by White and Graham we described a volumetric quantitative method for applying the cutaneous test of v. Pirquet. In the application of this test we use various percentages of old tuberculin and a definite quantity of 0.01 c.cm. The tuberculin is applied to one spot and protected by an ordinary vaccine shield to allow as complete absorption as possible. From a study of a number of cases we have been able to show that local and constitutional reactions are a part of the same phenomena, and that a definite ratio exists between the amount of tuberculin applied cutaneously and that given subcutaneously for the production of local and constitutional reactions. We have found that one-fifteenth of the amount of O. T. which when applied to the skin by our method will produce the minimal cutaneous reaction, will when given subcutaneously produce both local and constitutional reactions; that one-thirtieth of that same amount subcutaneously will produce local reaction without constitutional, and that one-fiftieth of the minimal cutaneous reaction dose will produce neither local nor constitutional reactions when given subcutaneously. It is possible by this method to determine, first, the borderland of reaction and no reaction to tuberculin, which will be the degree of tolerance of the patient to tuberculin; second, the dose of tuberculin necessary to give the grade of reaction desired. In beginning treatment, we first determine the minimal cutaneous reaction point of the patient as described. This is obtained in the majority of cases with 12.5 per cent. O. T., using 0.01 c.cm. of the solution; i. e., the minimal reaction is obtained by the absorption from the skin of 1.25 mg. of O. T. From the ratios above mentioned 1/15 of the amount 1.25 mg., or 83/1000 mg. O. T., will produce both local and constitutional reactions; 1/30, or 4/1000 mg., local without constitutional; 1/50, or 25/1000 mg., no local or constitutional reaction. One-fiftieth, or 25/1000 mg., is therefore an amount of tuberculin which when given subcutaneously is just below the quantity necessary to produce local reaction at the site of injection in cases giving a minimal cutaneous reaction to 12.5 per cent. O. T. by the method described.

The Relative Importance of the Human and Bovine Types of Tubercle Bacilli in Human Tuberculosis at Different Periods of Life

Dr. William H. Park, New York: Seventeen fatal cases of generalized tuberculosis in infants, in which the meninges were not involved, have been investigated. Twelve of these were due to the human type and five to the bovine type. Neither in age, in clinical symptoms, nor in pathologic findings, were any distinctive differences noticed which could be referred to the type of tubercle bacilli producing the infection. Ten cases of tuberculous meningitis were examined and all were due to the human type. Only two cases of abdominal tuberculosis were examined, and both were due to the bovine type. Twenty-nine cases of tuberculosis of the lymph glands of the neck were examined. Nine of these were of the bovine type, and the remainder of the human. There was no difference in the character of the cases, except that the majority of the bovine infections were in the younger children. In five cases of tuberculosis of the bones and joints all were due to the human type. There were examined four patients with pulmonary tuberculosis under 1 year of age, seven between 6 and 14 years, and 200 adults. In all the disease was due to the bacillus of human type. These results coincide so closely with the reports of other large series in different parts of the world that it looks as if there were little probability of further studies greatly changing our present ideas of the relative properties of human and bovine infection. Bovine infection is certainly a considerable factor in the tuberculosis of children. In adults, on the other hand, it is almost negligible.

Discussion on Tuberculosis

Dr. William H. Welch, Baltimore: Dr. Park's contribution is an extremely important one, especially the study of such a large number of cases of pulmonary tuberculosis without finding in a single instance the bovine bacillus, so far as that goes confirming Koch's contention at the last International Congress on Tuberculosis, at which he challenged any one to bring forward an authentic case of pulmonary phthisis due to the bovine tubercle.

Dr. S. Solis Cohen, Philadelphia: It is important to be able to determine the minimal dose of tuberculin with which it is safe to begin treatment. My only experience has been in cases of laryngeal tuberculosis. For many years I was afraid to use it, but my brother obtained excellent results from the very first in the treatment of tuberculosis of the larynx, and recently I have been using it in those cases in which tuberculosis of the larynx coexisted with pulmonary tuberculosis, and always with good results, although not always with recovery.

Dr. A. Jacobi, New York: Some time ago, Dr. v. Pirquet told me that of late he had been using the undiluted old tuberculin, and since then I have done the same. The method is very simple. I use only a small part of a drop. A single drop will suffice for twenty or twenty-five vaccinations. I scarify the skin, put the tuberculin on with a glass rod and leave it there a few minutes, having a control. I frequently use eosin simply to have something that may act as an irritant. A shield is put on, and I see the patient in three days, and almost invariably I have found the reaction positive in cases in which a general examination showed tuberculosis. I have never seen any untoward results.

(*To be continued*)

NEW HAMPSHIRE MEDICAL ASSOCIATION

Annual Meeting, held at Concord, May 12-14, 1909

The President, Dr. John M. Gile, Hanover, in the Chair

Reports of secretary, treasurer, councilors and chairmen of committees were read and placed on file to be printed in annual report.

The matter of expert medical testimony was exhaustively discussed, and it was voted that the chair appoint a committee of conference to meet with a like committee from the New Hampshire Bar Association to draft some bill on expert testimony which might be made a law at the next session of the legislature. The following were appointed. Dr. F. A. Stillings, Concord; Dr. E. O. Crossman, Lisbon; Dr. G. C. Wilkins, Manchester; Dr. J. J. Cobb, Berlin; Dr. John M. Gile, Hanover.

The next legislative committee was instructed to make strenuous effort to have the law governing the practice of medicine in New Hampshire modified at the next session of the legislature in some important particulars.

The secretary was directed to advise Senator Gallinger that the New Hampshire Medical Society was opposed to any restrictions on animal experiments, such as was contemplated in the District of Columbia.

The house approved vasectomy as reported from Indiana, and voted to oppose the licensing of so-called optometrists.

The officers elected for the ensuing year were named in The Journal, May 29, page 1768.

President's Address: Problems Confronting the Society

Dr. John M. Gile, Hanover: In an organization like this two general methods of procedure are open: One along the line of a loose association with little machinery and little paternalism in its methods: the other a radically different principle suggested by the whole trend of affairs toward industrial and social organization. The latter means carefully constituted committees and delegated authority, and most diligent and painstaking work on the part of those officers.

Expert medical testimony, in its present status, has been more discussed and more villified, derided and condemned than it would seem possible for any system to be and live, but it is still with us and without prospect of change. The bill introduced in the New York Assembly in March, 1909, probably will not pass. I suggest that a committee of conference be appointed to meet with a like committee from the New Hampshire Bar Association for friendly consideration of the subject. The American Urological Association is directing its attention to a propaganda for the sterilization by vasectomy of criminals, idiots and other defective classes, and is requesting the New Hampshire Medical Society to pass resolutions favorable to the legalization of such procedure. The frequency with which the defective reproduces his own or a still more degenerate type is appalling, and this fact is not appreciated even by the members of the medical profession unless special study is given to the subject. That famous family whose genealogy is recorded under the name of "The Jukes," showed among 700 descendants 55 per cent. of criminals and paupers, and in the course of a century cost the State of New York over a million and a quarter of dollars. Segregation has been the approved method of applying a check to this state of affairs, but it is expensive to the state and unsatisfactory to the subjects so controlled. Indiana legalized vasectomy two years ago for criminals and defectives and 800 individuals have thus been sterilized. Oregon has enacted a similar law.

The matter of suits against physicians for malpractice is always one of disturbing interest to the profession, and is one that has loomed especially large in New Hampshire in the past year. An organization, within the society, for medical defense appears to be giving highly satisfactory results in the states where it is in operation. This would tend to rule out those cases that are nothing more or less than blackmail and that are brought in the hope that the physician will pay a small sum rather than be put to the inconvenience and expense of trial. The law which regulates the granting of license to practice in New Hampshire has several features which make it cumbersome and not without friction in its working. The existence of three examining boards seems to be a needlessly awkward and cumbersome arrangement. One board with representatives from each of the so-called schools of medicine—eclectic, homeopathic and regular—should be simpler, better co-ordinated and more efficient in action. The present law apparently does not distinctly prohibit any one from practicing medicine so long as he does not attach the title of doctor or M.D. to his name. Complaints have come from the cities that unlicensed individuals are advertising and practicing medicine under the title of "Professor" and that the authorities refuse to prosecute under the existing law. In an effort to improve the law the legislative committee presented to the last legislature a bill dealing with those particulars in what seemed to be a more satisfactory manner, but opposition developed from various and somewhat unexpected quarters. The only purpose which the committee had was simply to make a more consistent law; hence when the opposition developed it was thought wise to let it die in the committee. New Hampshire, in common with nearly every other state in the Union, has in recent years been through a definite campaign for the advancement of medical education. The result is the remarkable change in the medical course of study of to-day as compared with that of 15 years ago. In connection with this the fact is to be noted of a marked decrease in the last five years of the number of students matriculated in the medical schools of the country. In 1904 there were 28,142 matriculants and 5,747 graduates and in 1908 there were 22,602 matriculants and 4,741 graduates, a decrease of 5,540 students and 1,007 graduates.

Surgery of the Stomach

Dr. John B. Deaver, Philadelphia, discussed in detail the symptomatology and diagnosis of diseases of the stomach and summed up the situation in gastric surgery as follows: 1. The treatment of ulcer surgically is highly satisfactory, but not perfect in its results. 2. With less danger in operating because of our present improved technic excision or resection of gastric ulcer will probably become much more frequent. 3. Chronic dilatation of the stomach is curable by gastroenterostomy, whether the pylorus be patulous or not. 4. Gastroptosis does not respond to surgical treatment. 5. Neuroses of the stomach are fit for surgical treatment only when their cause, being without the stomach, can be removed. Operations on the stomach for functional gastric conditions are always failures. 6. Carcinoma of the stomach in many instances would be curable if diagnosis would be made early; until our diagnosis is improved our results will continue to be poor. Unless we explore earlier and more often and not consider the responsibility of such procedure a grave one, we can not hope to progress in the surgery of malignant growths of the stomach.

DISCUSSION

DR. M. E. KEAN, Manchester: The problem would seem to be to evolve some plan of early diagnosis, so that the patient could be operated on while there was a good prospect of cure.

DR. F. B. LUND, Boston: Within the last two years the subject of gastroenterostomy has developed immensely. I have tried hard to get some help from laboratory men. Many patients have been sent to me by physicians as early cases of stomach disease, and I felt a careful laboratory examination ought to be made. Two young working men came to me supposedly with stomach disease. Both looked the least bit anemic and had gastric pain. One was found to have cancer, which could not be operated on by gastroenterostomy, as there was not room. The other had cancer also. The surgeon has to depend on the common sense of the doctor who has seen the patient and knows him. Acute ulcers in young men ought to have treatment. A great many will be cured without operation if the medical treatment is kept up, but it will not be and the case will eventually come to the surgeon. Medical treatment is difficult and has to be long continued. The majority of ulcers are cured by gastroenterostomy; it is a simpler proceeding than resection. I believe with Dr. Deaver that gastritis should not be operated on.

(To be continued)

ILLINOIS STATE MEDICAL SOCIETY

Fifty-Ninth Annual Meeting, Held at Quincy, May 18-20, 1909

(Continued from page 1882)

President's Address: The Relation of the Medical Profession to the Secular Press

DR. J. W. PETTIT, Ottawa: No agency is more potent for good or evil than the secular press. By secular press I mean more particularly the newspaper, which each day reaches fully 90 per cent. of the reading public. By far the larger part of the public, especially busy people, get about all their general information from the newspaper. It is the only printed source of information for fully one-half of the reading public. Any advertisement devoid of exaggeration, either expressed or implied, should be regarded as legitimate. It is not even this kind of advertising for whose recognition I plead, but that larger and more useful publicity which is miscalled advertising. Publicity may be defined as exploiting any medical fact which is of benefit to the public. Incidentally, more or less advantage will accrue to the publicity given to meritorious work done by the physician. This, however, is not advertising, but the legitimate reward for good work. The physician who furthers his own interest by doing good professional work is entitled to the reward which such service brings. This may be by scientific research, active society work, promotion of the public health, anything and everything that promotes legitimate medicine and the public welfare, and even though the motive may be fundamentally a selfish one, it should be encouraged. Many things are connected with our professional work of which the public has a right to know. There are also many to knowledge of which they have no right, and it would be a violation of professional confidence

to make public. The code is sufficiently clear on this point. I have observed that many medical men who advocate a narrow interpretation of the code are engaged in advertising by devious methods if we accept the doctrine that all publicity is advertising. The writing of useless books, the establishment of medical colleges for the primary purpose of securing the professorships, reading papers of doubtful value before medical societies as an excuse for the wholesale distribution of reprints, are some of the methods employed to evade the spirit of our code of ethics. This mad attempt to deceive and be deceived is responsible in a large measure for the establishment of so-called medical colleges, many of which are simply diploma mills, an evil which is not only a disgrace, but an absolute menace to our profession. One of the best means of mitigating these evils is to permit and encourage legitimate publicity along more rational and less harmful lines.

When Shall We Operate for Uterine Fibromata and Myomata?

Dr. S. C. Stremmel, Macomb: My assistant (Dr. Holmes) and I have operated in 61 cases, every one of which was complicated; four tumors had undergone carcinomatous degeneration, 1 sarcomatous, making 5 patients with malignant degeneration. The sarcomatous patient died 3 months after operation from recurrence, and one carcinomatous patient died in 6 months from recurrence. In the majority of our cases hemorrhage was a prominent symptom and was responsible for getting the patient's consent for operation. Ten tumors were large and produced pressure symptoms; 5 were complicated with ovarian tumors; 4 were multiple fibromata in which we were able to remove the growth without removing the uterus. One was a pedunculated fibromyoma weighing 19½ pounds; ascites and edema of the lower extremities and abdominal wall were extreme. A myomectomy was done; she recovered, and 2 years later gave birth to a child. We have never lost a patient from operation, but we have had some narrow escapes on account of undertaking cases away beyond the borderline of safety. I am convinced that we should advise operation for these tumors of the uterus as soon as the diagnosis is made, even before degenerative changes or complications occur. The only exceptions I make are those patients that any surgeon of average ability would refuse to operate on because of old age or a physical condition contraindicating operation.

DISCUSSION.

Dr. William Cuthbertson, Chicago: Many women present themselves for examination for other pelvic troubles and in the course of that examination we discover the presence of fibroid tumors. Unless these fibroids are sufficiently large to cause pain, displacement of the uterus, or profuse hemorrhages, I do not think we are called on to operate for their removal as soon as the diagnosis is made. Every practitioner of experience has seen cases of comparatively young women whose uteri have been studded with small fibroid tumors, yet they did not cause sufficient pain, displacement of the uterus, with accompanying constipation, disturbances of urination, to warrant operation; consequently I think we are safe in letting these young women go on and keep them under close observation.

Dr. Bertha Van Hoosen, Chicago: I have never been able to understand why a tumor of the uterus should be looked on any differently from a tumor of the breast. If a woman presents herself to me with a tumor of the breast, I would urge her to have it removed at once, and have a section of it examined microscopically, with a view of determining whether it is malignant or not. By this means we can get in the very early stages nearly all cases of carcinoma of the uterus. We know it does not do any harm to remove a small tumor from the breast; it is a simple operation; we know exactly what we are doing, and I believe the conditions in the pelvis are exactly the same.

SYMPOSIUM ON GASTRIC AND DUODENAL ULCER

Diagnosis of Gastric and Duodenal Ulcers

Dr. Christopher Graham, Rochester, Minn.: In the majority of peptic ulcers the type of symptom is fairly suggestive, and a careful development of the history will lead closely not only to a good diagnosis, but often to a degree of precision in ulcer location. The period of chronicity varies from 1 to 20 years, often running from 30 to 45. The average number of years in this series is between 12 and 13. The second characteristic feature is the periodicity of attacks. Are chronicity and periodicity peculiar to ulcer of the stomach? We find in gall-bladder disease, appendiceal colics and many general diseases this chronicity and this periodicity. Gallstone and appendiceal attacks come irregularly, increasing in severity as the attacks multiply. Pain is the most constant symptom of gastric ulcer. It is the time of pain or other symptoms; it is the regularity of pain and other symptoms; and it is the means by which the pain or other symptoms are relieved, that give the differential characteristics to gastric ulcer. Perforation is not infrequent and is acute or chronic. Chronic perforation causes adhesions to neighboring organs, reduces the motility of the stomach, which in turn decreases motor power and increases secretion. This increased secretion adds to the obstruction by causing pyloric spasm, while the spasm again heightens acid secretion, increases the pain, and threatens deeper ulceration. Hemorrhage which calls for radical interference is not so frequent as was formerly thought. As a complication, I would lay most stress on malignant degeneration, not because it calls for surgical relief oftener than does obstruction, malformation or perforation, but because it is the fruitful soil for cancer implantation. When cancer is once implanted, the cure has been proved most difficult, partly no doubt because the diagnosis is slow. In the differential diagnosis, three of the many conditions that call for attention are cancer, chronic appendicitis and gallstones. Until broader methods are evolved we must too often, in both gallstones and ulcer, rest satisfied with a surgical diagnosis.

Medical Treatment of Gastric and Duodenal Ulcer

Dr. B. W. Sippy, Chicago, discussed the medical treatment of gastric and duodenal ulcers, detailing a plan of treatment which, if rigidly carried out, will bring about good results.

Treatment of Non-Perforating Ulcers

Dr. A. J. Ochsner, Chicago: The surgical treatment of gastric and duodenal ulcer must depend on the accomplishment of three results in order to be practically successful: (1) It must remove all irritation from the ulcer in order to permit healing; (2) it must leave conditions so that the original cause of the ulcer is permanently eliminated; (3) it must leave a fairly satisfactory digestive apparatus after the patient has recovered from the operation. The irritation in persistent ulcer being due to the accumulation of severely acid gastric juice passing over the denuded surface, this irritation can be relieved by drainage at the lowest point of the stomach by gastroenterostomy, which at once prevents the accumulation of quantities of acid gastric fluid in the stomach and provides an outlet so that the fluid does not have to pass over this raw surface. Fortunately, the same procedure accomplishes the second and third conditions desired, provided the patient is carefully and persistently controlled in regard to taking non-irritating diet after the operation for the remainder of her life. In old suspicious-looking ulcers only will it be necessary to excise the pylorus, doing Rodman's operation, in order to prevent the implantation of carcinoma on the ulcer base. In ulcer accompanying hourglass stomach, excision and a plastic are frequently indicated. In perforative ulcer closure of the perforation should be done, and if obstruction follows subsequent gastroenterostomy is indicated.

Surgical Treatment of Perforating Gastric and Duodenal Ulcer

Dr. J. E. Allaben, Rockford: I here report a case of perforating gastric ulcer which was operated on, with recovery of the patient, and draw the following conclusions: (1) Ulcers of the stomach and duodenum are much more common than is usually supposed; (2) the life of an individual with ulcer is perpetually jeopardized by the possibility of perforation; (3) the treatment of perforating gastric or duodenal ulcer is limited to surgical procedure; (4) the prevention of perforation means the early diagnosis of ulcer in the preperforative stage, and its treatment by excision or gastrojejunostomy.

Discussion on Ulcer

Dr. John B. Deaver, Philadelphia: There is no class of affections that I approach with a greater degree of feeling of responsibility than stomach cases. I have felt for some time that too much was done on the stomach, and I have no reason to think otherwise. I am included among the number who have done too much. The more stomach surgery I do, the more I realize and appreciate the responsibility that we surgeons must have the courage to close the abdomen if we do not find a positive lesion, but in the past I have not done so. In the future I hope to do better. The avoidance of operation in acute hemorrhage is very important. Few patients die of acute hemorrhage of the stomach if treated medically; many die if treated surgically. That has been my experience.

Dr. Frank Billings, Chicago: Many years ago surgeons were not so liberal in their expressions in the treatment of chronic gastric ulcers as they are to-day. I have expressed on previous occasions strong convictions that a certain class of cases should be treated surgically. I think we owe a great deal to Dr. Sippy, who read the paper on the medical treatment of gastric and duodenal ulcers, and who has worked out a systematic scheme for the treatment of these cases which is just as technical as the surgical treatment of ulcer, and which must be carried out in every detail in order to obtain satisfactory results. I believe that if medical men carry out in the future medical treatment with the same accuracy and technical skill as the surgeon does his work, there will not be this controversy we have had in the past, and it will grow less in the future regarding the cases which are medical and those which may become surgical. That is true, for in the past the majority of us have been remiss in the medical treatment of ulcer of the stomach.

Dr. Arthur Dean Bevan, Chicago: These papers are the best examples of borderline work we have had for a long time. They show that it is absolutely essential, in order to achieve the best results, to have the diagnosis made and the medical treatment go hand in hand with the surgical handling of these cases. I feel I am fortunate in being associated with three or four medical men where we handle these cases by combining our efforts or by doing team work. This getting together of the internists and surgeons is the only way in which this subject can be satisfactorily worked out. I have gone through the same experience as most surgeons in the last five or eight years of having operated on a certain number of cases which were medical, and not surgical. On the other hand, I must say, in properly selected cases there is hardly any group of surgical cases so satisfactory as those which pertain to the stomach. Take a patient with obstruction of the pylorus; whose normal weight was 180 pounds, but he has declined in weight to 120 pounds; whose life is miserable; whose disposition is absolutely changed because of his continual suffering—that patient within six months after a simple gastroenterostomy regains his normal weight and returns to a condition in which he can enjoy life. The results from this operation on these cases are wonderfully satisfactory.

Gallstone Disease

Dr. John B. Deaver, Philadelphia: The ideal treatment of any disease, or disease process, involves, first, temporary relief of the patient, and, second, the prevention of a recurrence by removal of the primary cause. That there are some cases of gallstone disease unsuitable for radical treatment none would be so rash as to deny. The very old, those who have other grave organic diseases, as of the heart, lungs, or kidneys, can not be considered favorable cases for any kind of operative interference. We can not differentiate a stone-forming biliary catarrh from any other mild biliary catarrh, and so it is necessary to wait until stones are actually formed before we have a basis for operation. The time of election for operative interference is when we have to deal with gallstones entirely within the gall bladder and when complications have not yet set in. When we find gallstones, they must be removed and their cause, if possible, done away with. The first requirement we can only fulfill by a most careful exploration of the viscus and its ducts in every instance. In the hand of so competent an operator as Hans Kehr, calculi were overlooked in 2 per cent. of all cases. With surgeons less experienced in this line of work it is natural to suppose that this percentage is still larger and that the stones left behind account for many a case considered as one of recurrence after operation. With proper technic, however, there should be exceedingly few cases in which calculi are left behind. The removal of the cause involves an attempt to overcome the infection giving rise to the stone-forming catarrh. I hold that in every instance we should take for granted the persistence of such a catarrh, in spite of bacteriologic evidence to the contrary, and should drain in every case. It is not sufficient to provide for an open gall bladder only that drainage which it receives through the biliary tract. Who would think of allowing a possibly infected kidney to drain itself only through the ureter? Ideal cholecystotomy has fallen into well-merited oblivion. I believe that without thorough drainage we may have a temporarily curative operation for gallstones, but its effect as a prophylactic against their future formation is entirely lost. Perhaps the point of technic on which operators are still most divided is the removal of the gall bladder. I do not agree with those who hold that it should be removed whenever it is possible to do so. Not only is the mortality of cholecystectomy somewhat higher than that of cholecystostomy, but there are certain other disadvantages connected with the entire removal of the gall bladder. Adequate drainage of the bile tract is more difficult to secure and is less prolonged. If the stone-forming catarrh still exists, this may give rise to the formation at a later period of calculi within the duct, where they are apt to cause more difficulty; and, lastly, we are removing without a suitable substitute a bile reservoir which probably has some function which we do not as yet understand. The more complex details of the technic of gallstone surgery do not belong to a brief summary such as this. After all, the surgeon of to-day should be able to see that while technical detail is of great importance, correct diagnosis and understanding of underlying processes are still far more essential. In gallstone disease further progress will depend not on advances in operating only, but on earlier recognition and understanding of the disease process as a whole.

Poisoning from Bismuth-Subnitrate-Vaselin Paste

Dr. V. C. David and Dr. J. R. Kauffman, Chicago: After reporting five such cases, we draw the following conclusions: 1. Poisoning from bismuth-subnitrate-vaselin paste is more common than we had supposed. Since the report of these cases, in an examination of about 25 orthopedic cases in the Cook County Hospital in which bismuth-vaselin paste had been injected into tuberculous sinuses more than once, we found that in 6 patients there was more or less blue pigmentation of the gums. In one of the patients extreme blue pigmentation was present on the gums, the lips and the cheeks were without subjective symptoms. From this we have reason to believe that pigmentation of the gums is an early sign of bismuth intoxication, and should be taken as a signal to discontinue the injection of the paste for a time. 2. In the reported cases, 4 of the 5 patients received 6 ounces or less at the first injection, and 10 ounces or less *in toto*. 3. One fatal case occurred after the use of less than one ounce of paste. 4. Toxic symptoms developed after the first injection in from 10 days to 6 weeks, both extremes being the fatal cases. 5. The use of the *x*-ray apparently is not a factor which might influence poisoning because some of these patients were not skiagraphed after the paste was used. 6. There are acute and chronic cases of bismuth poisoning, the former being fatal, with general symptoms, and the latter tending to slow recovery with practically only local manifestations, but the onset of both is very much the same. 7. So far, no case of pure nitrate poisoning following the use of the bismuth-subnitrate paste is on record, and though there is but one case in which the nitrate played a part in the poisoning, it seems as though that danger should be avoided by the use of bismuth carbonate. 8. Impurities in the bismuth-subnitrate are not factors in the poisoning, because, metallic bismuth has been found in the local pigmented areas, and in two well-defined cases the analysis of the bismuth showed no considerable amount of impurities.

(*To be continued*)

Medicolegal

Liability for Preventable Fits

The Supreme Judicial Court of Massachusetts says, in the personal injury case of Dooley vs. Boston Elevated Railway Co., that while it might be conceded that the evidence of the experts as to the power of the plaintiff by a general course of life to lessen the spells she had, or to control them in any degree, was, taken as a whole, not very illuminating, yet it would have warranted a finding that by a proper and reasonable use of such will power as the plaintiff had she could lessen these spells by improving her general tone, and, further, that if she resisted the impulse and did not "let go of her feelings" she could control them to a certain extent.

In this state of the evidence it was asked that the jury be instructed that if they found there was such physical injury as to permit the recovery of damages for mental suffering or disease also, then in determining the damages to be awarded for mental suffering or disease the jury must eliminate from consideration such of the plaintiff's symptoms or demonstrations, if any, as could have been prevented by the exercise of such self-control as the plaintiff was capable of at the time of such symptoms or demonstrations. Also that if the jury believed that the plaintiff had had fits, spasms, or spells, since the accident, and believed that the coming on of such fits, spasms, or spells was always or sometimes under the plaintiff's control in the sense that she could, by the exercise of the will power or self-control of which she was capable, have always or sometimes prevented them from happening, had she wished to do so, then so far as that was the case she could not recover for fits, spasms, or spells so preventable, or for their consequences. These instructions were applicable to a possible view of the evidence that the jury might take, and their general accuracy could not be successfully questioned.

But, instead of such instruction being given, the jury were told that the question might be whether the fits, spells or spasms, as they had been called, were voluntary or involuntary, and that if the jury said that they were entirely under the plaintiff's own control, and that she need not have one unless she saw fit to, and she had it because she wished to, then these should not be taken into account so far as she could avoid them, whether they caused suffering or not. This, under the circumstances, was error.

The requested instructions had reference not so much to the spells which the plaintiff had "because she wished to," but to such "as could have been prevented by the exercise of self-control," and there is a material difference between the two classes. The first more aptly describes a fit to which the active will of the victim contributes, the second a fit where there is no active exercise of the will to prevent it. The first implies an active exercise of the will, the second simply a sluggish inaction, a negligent quiescence of the will. The instruction given fairly covered the law as to the first class, but it utterly ignored the law as to the second class.

It was further to be observed that this omission was material on what might be regarded as a tender spot in the case; a spot where the jury would be likely to sympathize keenly with the plaintiff. On all the evidence the plaintiff was in a condition likely to appeal to a jury. A young woman, healthy both in body and in mind, and cheerful in temperament, had become an invalid and morose, and she was seeking to hold the defendant responsible for this change. Under these circumstances it was the right of the defendant to have defined with precision the legal limits of its responsibility.

Insanity and Testamentary Capacity

The Supreme Court Commissioners of Nebraska say, in the Ayers' will case, that it might be admitted that the testator, pathologically considered, was insane for many years; but the real question was: Was his mind so diseased that his mental freedom was perverted and his understanding destroyed so that he was incapable of knowing and comprehending in a general way the natural objects of his bounty, the nature and extent of his estate, and the distribution he wished to make of it?

The medical definition of insanity as given by Dr. Hammond in his work on Diseases of the Nervous System (page 332), is a manifestation of disease of the brain characterized by a general or partial derangement of one or more of the faculties of the mind, in which, while consciousness is not abolished, mental freedom is perverted, weakened or destroyed.

The older view regarded the human mind as a single indivisible potency not comprising distinct functions, and consequently that any impairment thereof must be absolute, and not partial. But modern medical science recognizes, as shown by the definition above quoted, that there may be a partial derangement of one or more of the faculties of the mind, leaving others practically unimpaired, and hence arises what is called partial insanity.

This court has laid down the rule that where the insanity is not general, the question to be determined is whether the subject was the victim of such delusions as controlled his actions and rendered him insensible to the ties of blood and kindred. McClary vs. Stull, 44 Neb. 175. A very full discussion of the degree of soundness of mind required for the making of a valid will and a full citation of authorities will be found in the case of Perkins vs. Perkins, 116 Iowa, 253.

The law makes no distinction between mental incapacity whether congenital or caused by age, sickness or disease, and it therefore follows that partial insanity does not necessarily disqualify a testator from making a valid will. Some courts have gone so far as to say that, when there is nothing unreasonable on the face of the will by one habitually insane, it will be presumed to have been made in a lucid interval. Kingsbury vs. Whittaker, 32 La. Ann. 1055.

Wherefore, the Supreme Court of Nebraska holds that where it appears that a testator had been on various occasions temporarily confined in a hospital for the insane, but in the intervals was competent to transact with judgment and discretion his ordinary business, and had sufficient strength of mind and memory to know and comprehend and retain in his mind those who were or naturally should have been the objects of his bounty, the nature and extent of his estate and the distribution he wished to make of it, and that during such an interval he executed in due form his last will and testament making a reasonable distribution of his estate, a judgment probating said will should be sustained.

"Defect of Reason" and Criminal Liability

The Court of Appeals of New York says, in the case of People vs. Carlin, that under the statute of that state, which embodies the English rule laid down in the celebrated McNaghten Case, 1 C. & K. 134, a person is not excused from criminal liability as an insane person except on proof that at the time of committing the alleged criminal act he was laboring under a defect of reason, which, furthermore, must have been such as to render him either (1) ignorant of the nature and quality of the act he was doing, or (2) ignorant that the act was wrong. This is the only test of responsibility known to the law of the state of New York. The phrase "defect of reason" in the statute means disease of the mind, and a person who has committed an act otherwise unquestionably criminal may not be relieved from the consequences of that act where insanity is relied on as the sole defense, unless at the time of the commission of the act he was suffering from some disease of the mind. Material neglect has never yet been recognized as an excuse for matricide, and no matter how firmly the defendant may have been convinced that it was not wrong for him to kill his mother, his convictions to that effect could avail nothing as a defense unless they were the outcome of mental derangement.

Admissibility in Evidence of Disclosures to Physicians in Homicide Cases

The Court of Appeals of New York says that in the homicide case of People vs. Hill the defendant was examined by an expert for the people, who, before making the examination, told him that he had been requested by the district attorney to

make an examination of him and to ask him questions regarding himself and the accident. He then asked him to be free and frank with him, stating that he would use him right, and that he need not tell him anything that would incriminate himself so far as the deed was concerned. At the trial the defendant's counsel objected to the witness testifying as to any statement made by the defendant on the ground that the witness had promised the prisoner that he would treat him all right. It was claimed that this was an offer by which the defendant was induced to make statements to him on the understanding that he would not testify against him. The court's conclusion with reference thereto, however, is that such was not the fair or reasonable interpretation of the statement. There was no disclosure of the details of the homicide called out by the physician nor given by the defendant which was at all in controversy. The physician's examination of him, so far as questions were concerned, pertained to his memory, history, his family relations, diseases, and the extent to which he had indulged in drinking intoxicants. He then subjected him to a physicial examination for the purpose of determining, as far as possible, the presence of any disease. The court finds nothing in this on which error could be predicated. But the court holds that the declarations of the defendant made to another physician as to his recollections of transactions after the alleged homicide, but long before the time of the interview with the physician, were not competent evidence.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York

May 29

1 *The Etiology of Pain. E. G. Janeway, New York.
2 Hay Fever and Other Rhinologic Causes of Asthma. W. W. Carter, New York.
3 Myelogenous Leukemia. C. W. Cutler, New York.
4 The Future of the Alcohol Problem. T. D. Crothers, Hartford, Conn.
5 *Administration of Anesthetics. H. J. Boldt, New York.

1. **Etiology of Pain.**—Janeway discusses pains of various kinds and says that we should be cautious in labeling a severe pain as hysterical. He cites cases in which pain supposedly hysterical proved to be due to some serious condition. Pain due to toxic influences may baffle us unless we make diligent inquiry of the patient and his friends. Sciatica should be carefully scrutinized, since a condition that seems simple may be caused by pressure of a malignant growth. Pain in the abdomen may come from the kidney instead of the appendix, and it requires careful search to know whether pain comes from the kidney, gall bladder, or appendix. Pain on taxia may simulate some of these conditions. Pain in angina pectoris is severe and characteristic, and when combined with increased blood pressure and ashy lips it should not be mistaken.

5. Abstracted in THE JOURNAL, May 15, 1909, p. 1614.

Boston Medical and Surgical Journal

May 27

6 Early Career of Sydenham, with Remarks on the Men and Medicine of His Time. C. G. Cumston, Boston.
7 *Cancer of the Cervix Complicating Pregnancy. J. T. Williams, Boston.
8 *Classification of the Malarial Plasmodia. C. F. Craig, U. S. Army.

7. **Cancer of the Cervix.**—As the result of an examination of the records of the Boston Lying-in Hospital, Williams draws the following conclusions:

1. Cancer of the cervix does not prevent conception, and in a large percentage of cases antedates the pregnancy.
2. Cancer of the cervix, as a rule, grows with great rapidity during pregnancy and the puerperium
3. While the prognosis of cancer of the cervix is more grave during pregnancy, it is not hopeless
4. When an operable cancer of the cervix is discovered during pregnancy, no matter at what period, immediate operation is indicated.
5. Up to the present time statistics favor the Wertheim operation, preceded by Cesarean section if the child is viable.
6. In inoperable cancer with a living child at term, conservative Cesarean section is the method of choice. If the child is dead, or premature, a subpubic delivery will give the best result.

8. **Classification of Malarial Plasmodia.**—Craig discusses this subject and proposes the following classification:

Division. *Protozoa*
Class. *Sporozoa*
Order *Hemosporidia*
Genus *Plasmodium.*
Species:

1. *Plasmodium malariæ*, Marchia and Celli. Quartan malarial plasmodium
2 *Plasmodium vivax*, Grassi and Feletti. Tertian malarial plasmodium
3 *Plasmodium falciparum*, Blanchard. Estivoautumnal plasmodium, tertian type
Sub species
1 *Plasmodium falciparum quotidianum*, Craig, 1909. The quotidian estivoautumnal plasmodium

New York Medical Journal

May 29

9 Idiopathic Dilatation of the Esophagus. M. Einhorn, New York
10 *Theories and Problems of Heredity. J. Wright, New York.
11 Indications for Operations on the Stomach. J. J. Gilbridge, Philadelphia
12 Dacryocystitis. A J Herzig, New York.
13 *Digital Enucleation of the Faucial Tonsil. A. M. MacWhinnie, Seattle, Wash
14 Otitic Significance of Tonsillectomy with Reference to Digital Enucleation H B Blackwell, New York.
15 Deficient Oxidation and its Relation to the Etiology, Pathology, and Treatment of Nephritis (continued). N. E. Ditman and W H Welker, New York.

10. **Theories and Problems of Heredity.**—In this article Wright discusses cancer as a problem of heredity in its bearing on the problems of histology. He pays special attention to mouse cancer He says that if cancer research in animals has thrown an expected light on cancer in man, it has thrown considerable light, it seems to him, on the problems of heredity, and certainly an unexpected light on histology and on embryology, that recapitulation of heredity. Hitherto the view has prevailed that the stroma of an epithelial cancer is derived from the connective tissue surrounding it. Wright thinks that in the future this can hardly be maintained in its entirety, in view of the rising flood of testimony to some of which he had referred. All his experience goes to support the view that the type of tumor in the human individual remains practically the same, so far as structure is concerned, throughout the life of the host, and while he can not but believe that epithelial cells may furnish stroma and connective tissue cells, a benign tumor does not change to a malignant one, nor does the latter change its type except very rarely. That it does so occasionally in the one human host perhaps can not be denied, but he has never seen any proof of it in practice, nor has he ever seen any adduced literature satisfactorily establishing the fact. Malignancy is not an expression which belongs to objective diagnosis. It refers to the host, not to the cancer guest. Final as the testimony of the microscope is so frequently thought to be, it is by no means a court of last resort. It can never be sufficiently urged that the biologic activities evidenced in the clinical history and the biologic condition noted in the structure must be correlated in forming an opinion as to the fate of the patient. Clinical experience combined with histologic observations has not demonstrated the fact that "the virulence of a tumor is the measure of its histologic structure" (Apolant and Ehrlich) with sufficient accuracy to make the opinion of the histologist as to the degree of malignancy in any given specimen of any great value.

13. **Enucleation of the Faucial Tonsil.**—MacWhinnie praises digital enucleation of the faucial tonsils on the following grounds: (1) Rapidity of the operation; (2) absolute nonrecurrence if removed in its capsule; (3) minimum amount of hemorrhage and subsequent anemia; (4) the importance of starting on the outside of the capsule; (5) ease of performance, so amputation should never be thought of, even as a palliative measure. He describes the procedure as follows: The point of importance that should be remembered is to begin the procedure outside of the capsule, in the posterior inferior portion of the sinus, working up to the supratonsillar

fossa. The finger is then brought to the posterior inferior portion of the sinus, working up to the supratonsillar fossa. The finger is then brought to the original starting point and the same procedure is carried out, posterior to the anterior pillar, into the supratonsillar fossa to meet the first dissection; the finger is then carried to the original starting point, and by working forward, the thumb being on the anterior surface of the tonsil the enucleation is completed, the gland coming away in its capsule. At this point the operator should not try to pull the tonsil, for if he does some of the superior constrictor may come as well and hemorrhage result. When starting the procedure, the operator should begin on the outside of the capsule; there is almost no danger of getting inside of it, for if he did it is manifest that the work would be incomplete.

Medical Fortnightly, St. Louis

May 25

16 *Wandering Spleen in the Pelvis. F. Hinchey, St. Louis.
17 Immunity. L. H. Warner, Brooklyn, N. Y.
18 Chronic Appendicitis. C. A. Boice, Washington, Ia.
19 The Invalid's Vacation. G. H. Tarson, Mount Clemens, Mich.

16. **Wandering Spleen.**—Hinchey reports a case with the following features of special interest: During the years 1905 and 1906 when the patient was passing through the severe nervous manifestations that were ascribed to the menopause, she presented the clinical symptoms common to splanchnoptosis. Prior to that time and since the menopause these symptoms were never observed. There is the same general ptosis now as then, with the lower border of the stomach below the navel, the right kidney readily palpable opposite the navel and freely movable, decensus of the liver and transverse colon, great laxity of the abdominal parietes, depression of the epigastrium and marked bulging of the hypogastrium; yet despite these conditions there are none of the usual symptoms commonly ascribed to splanchnoptosis. Bearing this in mind, Hinchey believes that the removal of the diseased ovary *per vaginam*, with thorough repair of the pelvic floor, will relieve her of all her symptoms. The patient's marked ability to cope with the tubercle bacillus is also worthy of comment.

Virginia Medical Semi-Monthly, Richmond

May 21

20 Value of the von Pirquet Test for Tuberculosis. J. S. Davis, Charlottesville.
21 Etiology of Renal Sclerosis, Chronic Interstitial Nephritis. R. T. Styll, Newport News.
22 Sheet of Directions Given the Patient After a Tonsil Operation, including Treatment of Postoperative Hemorrhage. E. Pynchon, Chicago.
23 Alcohol. B. C. Keister, Roanoke.
24 Sacral Hematoma: Spina Bifida Converted into Hematoma During Breech Presentation; The Tumor Presenting. E. T. Brady, Abington.
25 Medical Organization and Its Benefits. V. V. Anderson, Lynchburg.

Journal Experimental Medicine, New York

May

26 *Atypical Forms of Tubercle Bacilli Isolated from the Human Tissues in Cases of Primary Cervical Adenitis. C. W. Duval, Montreal.
27 *Experimental Study of Influence of Kidney Extracts and of the Serum of Animals with Renal Lesions on the Blood Pressure. R. M. Pearce, New York.
28 *Pneumothorax and Posture. C. A. Elsberg, New York.
29 *Effects of Roentgen Irradiation on Changes in the Cell Content of Blood and Lymph Induced by Injections of Pilocarpin. R. L. Dixon, Ann Arbor, Mich.
30 *Influence of Addition of Adrenalin to Solutions of Sodium Chlorid and Calcium Chlorid on Production of Urine, Ascites, and Intestinal Fluid. M. S. Fleischer and L. Loeb, Philadelphia.
31 *Influence of Myocarditic Lesions on Production of Ascites, Intestinal Fluid and Urine in Animals Infused with Solutions of Sodium Chlorid and Calcium Chlorid. M. Fleischer and L. Loeb, Philadelphia.
32 *Intracranial Pressure. J. A. E. Eyster, M. T. Burrows and C. R. Essick, Baltimore.

26. **Atypical Tubercle Bacilli.**—Duval reports the study of four cultures of tubercle bacilli recovered from cases of a peculiar primary cervical adenitis in man, three of which died of acute general miliary tuberculosis. One of these cultures is of the human, another of the bovine type, while two are intermediate or atypical. One of the latter is of special interest. The case from which it was obtained ran a rapid course; enormous numbers of bacilli were found in the tissues and they were highly virulent for rabbits and guinea-pigs, easily cultivated, and resistant to unfavorable conditions. Because of these characteristics and also because it produced lesions in chickens, it is regarded as an avian type of bacillus. Duval does not believe that the morphologic characters of the bacilli of different cultures afford much aid in differentiation, because these characteristics may vary, depending on the kind and reaction of the media.

27. **Kidney Extracts and Blood Pressure.**—Pearce finds that extracts of the kidneys of various animals may increase or diminish blood pressure, depending on the animal injected. Such substances have not the constant effect on all animals that extracts of the adrenal gland have. Extracts of kidneys the seat of different forms of nephritis have the same effect as extracts of normal kidneys.

28. ***Pneumothorax and Posture.***—*Elsberg finds that when a* dog lies on its belly the heart falls toward the anterior chest wall, and supports the anterior septum between the two pleural cavities. This septum is weaker than the posterior septum, and is apt to rupture with the violent respiratory movements that take place when the pleura is opened if the dog is on its back. The danger of open pneumothorax is greatly lessened when the animal is in the prone position.

29. **Effect of X-Rays on Increase of Leucocytes.**—Injection of pilocarpin hydrochlorate into the muscles of a dog causes a definite increase of leucocytes in the circulation. So far as the mononuclear cells are concerned, this increase is interrupted by the action of *x*-rays, while the polymorphonuclears are relatively slightly reduced in number by this action. Dixon believes that the greater decrease of mononuclears by the use of *x*-rays perhaps is explainable by the fact that the parent cells of the polymorphonuclear leucocytes are not so accessible to the rays because of their situation in the interior of bone.

30 and 31. Edema.—Calcium chlorid, adrenalin and myocardial lesions each in a specific way effect elimination of fluid by the kidneys, by the mucosa of the small intestine, and by the lining of the peritoneal cavity. Hence Loeb and Fleischer conclude that the conditions influencing the elimination of fluids by these three surfaces must be different in each case and peculiar to the cells lining the surfaces.

32. **Intracranial Pressure.**—Increase of blood pressure resulting from increase of intracranial pressure over the blood pressure, takes place in the dog owing to constriction of the vessels of the intestines, kidney and limbs. In the brain the increase of intracranial pressure causes complete anemia. When the intracranial pressure is not so greatly increased, some of the larger connections at the base of the brain are more or less well injected. In the dog, the internal maxillary artery plays an important part in the cerebral circulation, and because of its position within the cranial cavity it is unaffected except by extreme degrees of intracranial pressure.

Providence Medical Journal

May

33 Medical Supervision of Schools and its Relation to the General Practitioner. A. J. Akers, Providence.
34 *Early Maternity. R. H. Carver, Taunton, Mass.
35 Old Age and its Consequences. F. N. Brown, Providence.
36 Lumbar Punctures. A. H. Ruggles, Providence.

34. **Early Maternity.**—Carver brings forward documentary evidence in support of a case of maternity twenty-four days before the girl was 10 years old, the father being 15 years. The son born when last heard of was in jail, having previously served a term in the house of correction.

American Journal of Public Hygiene, Boston

February

37 *Simple Procedure for Disinfection of Passenger Coaches and to Kill Vermin in Them. J. A. Amyot, Toronto, Canada.
38 *Measures to Promote the Health of School Children. M. L. Price, Baltimore.
39 *Id. S. G. Dixon, Philadelphia.
40 Health Problems of Provinces. M. M. Seymour, Regina, Saskatchewan, Canada.
41 Health Problems in Alberta. D. G. Revell, Edmonton, Alberta, Canada.

42 *Sociology of the Middle and Far West. C. F. Fagan, Victoria, B. C.
43 Social and Public Health Development of the Northwestern States and of the Western Central Provinces of Canada. P. H. Bryce, Bracondale, Ontario, Canada.
44 The Rat as a Factor in Disease. N. K. Foster, Sacramento, Calif.
45 Yellow Fever in Mexico. E. Liceaga, Mexico City, Mex.
46 Relation of State or Provincial Boards to Municipal Boards and Local Health Officers. C. A. Hodgetts, Toronto, Canada.
47 *Diphtheria Observed in Guadalajara, Mexico, from Jan. 1, 1904, until June 30, 1908, from a Hygienic Standpoint. M. M. Lopez, Mexico City.
48 *Tuberculosis and Poverty. E. T. Lies, Minneapolis.
49 Result of the Preventive Treatment of Rabies and Its Present State. D. Lopez, Mexico City.
50 *Best Method of Vaccinating with Humanized Lymph. F. de P. Bernaldez, Mexico City.
51 Determination of the Typhoid Bacillus in Infected Water and Milk. D. D. Jackson and T. W. Mella, Brooklyn, N. Y.
52 Method for Determining the Number of Dust Particles in Air. C. E. A. Winslow, Boston.
53 Report of Committee on Technical Progress. B. R. Rickards, Columbus, O.
54 Standard Methods for Bacterial Diagnosis of Typhoid Fever. F. F. Wesbrook, Minneapolis.
55 *Working Method for Use in Diagnosis of Rabies. A. W. Williams, New York.
56 Standard Methods for the Bacteriologic Diagnosis of Tuberculosis. M. P. Ravenel, Philadelphia.
57 Methods for the Bacterial Diagnosis of Glanders. W. L. Beebe, St. Cloud, Minn.
58 Standard Methods for the Bacterial Diagnosis of Diphtheria. B. R. Rickards, Columbus, O.
59 *The Mortality from Industrial Diseases. L. W. Hutchcroft, Madison, Wis.
60 Need of Greater Uniformity and Accuracy in Statistical Expression. F. S. Crum, Newark, N. J.
61 Notification and Morbidity Returns in Cuba, with Special Reference to Yellow Fever and other Major Infectious Diseases. C. J. Finley, Havana, Cuba.
62 Protection of Public Milk Supplies from Specimens Contaminated with Pus Organisms. J. O. Jordan, Boston.
63 *The Survival of *B. typhosus* in Milk when used in Ordinary Breakfast-Table Coffee and Tea. H. W. Hill.
64 Work of the State Inspectors of Health and its Relation to the Work of Local Boards of Health. E. Washburn, Taunton, Mass.
65 Practice of Exposing Food Stuffs to the Street Dust and Its Effect on the Public Health. F. H. Slack, Boston.
66 Personal Hygiene. P. G. Styles, Boston.
67 Veterinary Hygiene. W. L. Beebe, St. Cloud, Minn.

37. **Disinfection of Passenger Coaches.**—Amyot describes the construction of an inexpensive structure, which is practically a disinfecting house, wherein formaldehyd or potassium cyanid disinfection of one or more railroad or other cars can be carried on.

38, 39, 50, 55. Abstracted in The Journal, Sept. 12, 1908, pp. 939, 941, 942.

42. **Sociology of the West.**—Fagan contrasts social conditions in the west with those in the east and in Europe. He regrets the too great independence of restraint among children. While the spirit of independence is good, too great freedom of action at an age when neither discretion nor judgment is developed is not good. He deplores the uncontrolled shaping of their own educational courses by juveniles, their attending or leaving school at will and selection of a calling, often in direct opposition to the parental wish. The teaching in hygiene is poor, he asserts, the teachers largely unlearned in science, and the text-books used a farce.

47. **Diphtheria in Guadalajara.**—Lopez describes an epidemic of diphtheria in an elevated city, which led him to the conclusion that the contagion of diphtheria is very inferior to that of measles, smallpox or scarlet fever.

48. **Tuberculosis and Poverty.**—Lies discusses the mutual interaction of tuberculosis and poverty, and says that what we need in this country is an adaptation of the German system of industrial insurance, which would have the effect, as it has in Germany, of encouraging a man to undertake treatment for tuberculosis early, when he is still in a curable stage, instead of waiting because of the expense involved, until he goes over the incurable line.

59. **Industrial Diseases.**—Hutchcroft points out that the old mortality grouping by occupations is, nowadays, apt to be misleading. It is evident, from the division of labor which has come about in most of our industries, that the work done by one set of laborers in an industry might be very unhealthful and cause some special form of occupational disease, while the employés in the remainder of the industry might not be subject to any destructive agencies. It is the particular branch of the industry which develops an occupational disease with which we are concerned, although for purposes of comparison it would seem desirable to study the industry as a whole.

63. **The Bacillus Typhosus in Tea and Coffee Milk.**—Hill's experiments indicate that the epidemiologist, in listing those exposed to infection from a given milk supply, should not eliminate those who drink milk only in coffee or tea; for he has demonstrated that *Bacillus typhosus* survived in a mixture of milk with hot coffee or tea, and could be recovered from it twenty-four hours after the mixture was first made, except when the initial temperature of the mixture was above 68 C. Coffee or tea can not be used as a drink by most people at a temperature above 50 C.

Interstate Medical Journal, St. Louis

May

68 *Rectal Anesthesia. N. B. Carson, St. Louis.
69 Diagnosis and Treatment of Ectopic Gestation. E. E. Montgomery, Philadelphia.
70 Points of Interest in Tuberculosis of the Larynx. C. Graef, New York.
71 *Circumscribed Serous Spinal Meningitis. M. A. Bliss, St. Louis.
72 Guillotin. F. J. Lutz, St. Louis.

68. **Rectal Anesthesia.**—Carson reviews the history of this procedure of which he thinks the alleged dangers more imaginary than real, basing his opinion on an examination of the recorded fatal cases. He reviews the physiology and has been surprised in his series of cases by the rapidity of the absorption. The advantage, besides the removal of the anesthetist from the field of operation, is lessened fatality, owing to the lung being free to eliminate ether as fast as it is absorbed, so that it can safely be used when there is involvement of the lungs. Carson believes this method to be especially applicable in goiter operations. He uses Sutton's simple apparatus. He describes the technic and reports 16 cases in 2 of which death occurred from surgical shock and in one from medullary pressure in a brain case. He is convinced that the application of this method in properly prepared cases—he insists strongly on the method of preparation—has many advantages over the inhalation method.

71. **Circumscribed Serous Spinal Meningitis.**—Bliss discusses the etiology of this condition, and says that his own case gives a very clear history of traumatic causation, but whatever may be ultimately determined as to the most frequent causative factors, it is well to remember that the symptoms may come on insidiously and slowly. A history of intercostal neuralgia, of mild or severe type, is not unusual if the seat of greatest compression is in the dorsal region; in the lumbar region, lumbago, anterior crural or other nerve group neuralgias, may occur primarily, to be followed later by a rather even anesthesia and analgesia, associated with cramping of muscles and increased deep reflexes, and by bladder and rectal signs. An upper limit of the lesion can usually be determined.

Journal of New Mexico Medical Society, Albuquerque

May

73 Diagnosis and Surgical Treatment of the More Common Gall-Bladder Diseases. R. L. Bradley, Roswell.
74 Scarlet Fever. W. G. Hope, Albuquerque.
75 Erysipelas. C. M. Yater, Roswell.
76 Ileus. J. H. Wroth, Albuquerque.
77 Anesthesia. C. F. Montgomery, Lake Arthur.

Iowa Medical Journal, Des Moines

May

78 Methods of Diagnosis in Surgical Diseases of the Kidney Accompanied by Pyuria. L. W. Bremerman, Chicago.
79 Indications for Operating in Acute Otitis Media. L. W. Dean, Iowa City.
80 Psychologic Therapeutics and Some of its Limits. C. E. Huband, Ottumwa.
81 History of Keokuk Medical College and Evolutions in Medical Education During That Time. G. F. Jenkins, Keokuk.

Laryngoscope, St. Louis

May

82 Résumé of Some Work on Infection Through the Tonsillar Crypts. J. Wright, New York.
83 *Tonsillectomy. S. Yankauer, New York.
84 Vincent's Angina. H. Arrowsmith, Brooklyn.
85 Removal of Laryngeal Tumors in Left Lateral Position. R. H. Johnston, Baltimore.

86 Ranula. J. C. Beck, Chicago.
87 Chronic Interstitial Otitis, or Chronic Middle-Ear Catarrh and Otosclerosis. W. S. Bryant, New York.
88 Edema of Larynx Following an Infection of the Lower Pharynx. M. D. Lederman, New York.
89 Teratoma of the Tonsil. R. D. Jewett, Winston-Salem, N. C.
90 Sinus Skiagrams in the Erect Position. S. Lange, Cincinnati.
91 Perichondritis of Auricle Treated Successfully by Injection of Fifty per cent. Alcohol. H. Gifford, Omaha, Nebr.

83. **Tonsillectomy.**—Yankauer gives anatomic reasons for a novel method of local anesthesia in tonsillectomy. He injects with cocain the trunks of the middle and posterior palatine nerves as they leave the bony opening. The entire region involved in the operation of tonsillectomy can be thus anesthetized.

Medical Herald, St. Louis

May

92 Roentgen-Ray Diagnosis in Pulmonary Tuberculosis and Gastric Carcinoma and Ulcer. E. H. Skinner, Kansas City, Mo.
93 The DeForest Cautery Apparatus. H. J. Boldt, New York.
94 Influences in the Foundation of Modern Medicine. C. A. Potter, St. Joseph.

Journal Indiana State Medical Association, Fort Wayne

May

95 "Rubbering in Europe." L. F. Schmauss, Alexandria.
96 *Pathology of Exophthalmic Goiter. J. A. McDonald, Indianapolis.
97 Outlines of the Evolution of Psychopathies. I. O. Allen, Centerville.
98 Race Suicide from the Physician's Viewpoint. W. W. Wadsworth, Muncie.
99 Modern Syphilis. F. H. Jett, Terre Haute.
100 Sketches of the Medical History of Indiana (continued). G. W. H. Kemper, Muncie.

96. **Exophthalmic Goiter.**—McDonald concludes, from a review of the subject, that the symptoms of exophthalmic goiter are due to the excessive activity of a thyroid gland, the seat of certain characteristic changes indistinguishable from hypertrophy. He asks: Why should the process of hypertrophic compensation, elsewhere a beneficent and reparative function, here so far overstep its authority as to produce a symptom-complex which is certainly pathologic? And: What is the ultimate cause of this overstimulation? The overcompensation he considers to be in response to the continued action of certain toxins or stimulation bodies. In regard to the second question, he refers to reported cases confirming the suggestion of McCallum, that the underlying cause is an infection of some type—influenza, septic infection, scarlatina, diphtheria, cerebrospinal meningitis, measles, smallpox, purulent peritonitis or tuberculosis. In a case that he has had under observation for some months, the patient has a preceding history of long and severe typhoid fever. Little accurate work in exophthalmic goiter therapy can be hoped for until we have more conclusive information regarding the physiology of the gland.

Journal of Medical Research, Boston

April

101 Quantitative Relations of Antigen, Amboceptor, and Complement in the Estimation of Hemolysis. S. S. Kneass and J. S. Evans, Philadelphia.
102 *Acute Pancreatitis without Necrosis or Bacterial Invasion. C. Frothingham, Boston.
103 Studies of the Physiologic Leucocyte Content of Cow's Milk. B. H. Stone and L. P. Sprague, Burlington, Vt.
104 *Staphylococcus Infection Treated with Leucocyte Extract. P. H. Hiss and H. Zinsser, New York.
105 *Localized Anaphylactic Intoxication in Children Following the Repeated Injection of Antitoxin. W. P. Lucas and F. P. Gay, Boston.
106 Malignant Tumors in Mice, with Report of a Spontaneous Adenocarcinoma in a House Mouse (*Mus Musculus*). E. F. McCampbell, Chicago.
107 *Pathologic Cytology of Surgical Shock. Alterations Occurring in the Purkinje Cells of the Dog's Cerebellum. D. H. Dolley, Chapel Hill, N. C., and G. W. Crile, Cleveland, O.
108 Rhabdomyosarcoma of the Uterus. A. R. Robertson, Boston.
109 Effect of Dilution on the Flocculation of Colloids. B. H. Buxton and A. H. Rahe, New York.
110 *Study of Specificity and Sensitization by the Cutaneous Test with Human and Bovine Tuberculin. F. T. Lord, Boston.
111 *Quantitative Modification of the von Pirquet Tuberculin Reaction and its Value in Diagnosis and Prognosis. W. C. White and D. A. L. Graham, Pittsburg.
112 *An Agar-Gelatin Medium. C. E. North, New York.
113 *The Behavior of the *Gonococcus* in Carbohydrate Media. T. Watabiki, Tokyo, Japan.

102. **Acute Pancreatitis.**—Frothingham concludes that, under certain undetermined conditions, polymorphonuclear leucocytes immigrate into the pancreas in sufficient numbers to cause considerable lesions; this occurs more frequently in acute infectious diseases than in chronic diseases; as yet the lesions have not been correlated with clinical symptoms.

104. **Leucocyte Extract in Staphylococcus Infection.**—Hiss and Zinsser have no hesitation in concluding that "marked improvement in, and cure of, localized staphylococcus infection may be obtained by careful and systematic treatment with leucocyte extract." The extracts were obtained from rabbit leucocytes, treated with distilled water, and administered by subcutaneous injection.

105. **Intoxication After Antitoxin Injection.**—Lucas and Gay describe an immediate local edema and infiltration with tenderness, followed in untreated cases by necrosis, in persons reinjected with diphtheria antitoxin. The percentage showing this reaction increased with the number of injections at short intervals after a primary injection. The reaction corresponds to Arthus' phenomenon in rabbits.

107. **Surgical Shock.**—Dolley describes definite alterations in the Purkinje cells of the cerebellum of dogs in which surgical shock was produced by manipulation of the abdominal contents. The changes followed a definite course and occurred in animals in which the possible influence of anemia was eliminated by transfusion of blood from normal dogs.

110. **Specificity and Sensitization.**—Lord finds that the cutaneous tuberculin test in man fails to give evidence of a specific and differential quality in human and bovine tuberculin. This result in man corresponds to the results obtained with differential tuberculin tests in animals, and emphasizes the very intimate relationship, so far as susceptibility to reaction is concerned, between the human and bovine types of tubercle bacilli.

111. **Modification of von Pirquet Tuberculin Reaction.**—White and Graham express their conviction that cases of tuberculosis, except advanced ones, not reacting to the cutaneous tuberculin test, using 0.02 cm. of 100 per cent. Koch's old tuberculin, must be considered as free from tuberculosis or as having very inactive lesions.

112. **Agar-Gelatin Medium.**—Agar-gelatin medium described by North is made as follows (1 liter): Extract of one pound of lean beef or veal, extracted with 500 c.c. of water for eighteen hours; 10 grams of agar; 20 grams of gold label gelatin; 20 grams of dried peptone (Witte's); 5 grams of sodium chlorid; water to make one liter. The reaction is adjusted to the neutral point in the usual way, using phenolphthalein as indicator. The medium is favorable for the growth of pneumococcus, meningococcus, gonococcus and other bacteria ordinarily kept on hand. It can be used at 37 C., as well as at lower temperatures, and is recommended as a convenient routine medium.

113. **The Gonococcus.**—Watabiki finds that on carbohydrate media gonococcus ferments only mannite, dextrose, dextrin and levulose, indicating an absence of the varieties usually found among other bacteria. He also failed to obtain indications of the existence of varieties by means of certain serum reactions.

Old Dominion Journal of Medicine and Surgery, Richmond

May

114 Claudius Galen. B. M. Randolph, Washington, D. C.
115 Dysentery Due to Protozoa. W. Allan, Charlotte, N. C.
116 Mental Responsibility in Acute and Chronic Intoxication with Alcohol and Other Drugs. A. Gordon, Philadelphia.
117 Arteriosclerosis and Ocular Lesions. W. H. Wilmer, Washington, D. C.
118 Rectus Incision for Reduction of Strangulated Hernia, with Report of Case of Strangulated Hernia in the Sac of an Undescended Testicle. C. R. Robins, Richmond.
119 Example of Eventration. J. L. Hankins, Century, W. Va.
120 Example of Acephaly. A. J. Osborne, Lawrenceville, Va.
121 Rather Rare Complication in Gunshot Wound. S. R. Jordan, Republican Grove, Va.

Long Island Medical Journal, Brooklyn

May

122 Rational Treatment of Typhoid. E. E. Cornwall, Brooklyn.
123 Climate in Treatment of Pulmonary Tuberculosis. H. Greeley, Brooklyn.
124 Finer Points of Ether Therapy as Applied in Anesthetics. W. C. Woolsey, Brooklyn.
125 Secondary Anemias. R. A. Bate, Louisville, Ky.
126 Surgical Treatment of Internal Hydrocephalus. R. S. Fowler, Brooklyn.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London

May 15

1 Acute Rheumatism, its Allies and its Counterfeits. F. de H. Hall.
2 Diagnosis and Treatment of Morbid Conditions of the Pleura. T. R. Bradshaw.
3 *Bacillus Pyocyaneus Pyemia Successfully Treated by Vaccine. E. H. Groves.
4 Tuberculous Meningitis without Tubercles. F. W. Higgs.
5 Outbreak of Meat Poisoning at Limerick. E. J. McWeeney.
6 Condition of the Blood in Experimental Rickets. L. Findlay.
7 *Treatment of Sleeping Sickness. A. Balfour.
8 Injury to the Vessels in Dislocation of the Shoulder. W. H. Battle.
9 Surgical Considerations Connected with the Anatomy of the Maxillary Sinus. A. S. Underwood.

3. **Bacillus Pyocyaneus Pyemia.**—Groves reports the case of a boy, of 10, who was operated on in August, 1908, for lameness due to fixation of the left hip. In November, 1907, he had had two abscesses, one in the right groin, the other on the inner side of the left thigh, the latter healing very slowly. The operation in August, 1908, was followed immediately by what proved to be a severe pyemia, from which a culture of the *Bacillus pyocyaneus* was isolated. A vaccine was prepared, and first 40, then 60 millions, increased later to 100 millions, of bacilli were injected, at intervals grading from a week to a fortnight. From the date of the second injection the boy's condition has rapidly improved. A peculiar feature in this case was that the patient exhibited three different varieties of pathologic dislocation of his joints: 1. Dislocation by destruction of bony surfaces; illustrated by the tuberculous left hip. 2. Dislocation by destruction of ligaments and the traction of muscles; illustrated by the right thumb. 3. Dislocation by distention of the capsule; illustrated by the right hip. Groves summarizes as follows the lessons of this case:

1. The danger of trusting to an "aseptic" system of surgery when dealing with the region of the groin. He now always uses 1 in 2,000 biniodid of mercury as lotion in these cases when asepsis is doubtful.
2. The absolute importance of an exact bacteriologic diagnosis in every case of suppuration.
3. The great gravity of *Bacillus pyocyaneus* infection.
4. The potency of vaccinal treatment of this infection.

7. **Sleeping Sickness.**—Balfour is led by a perusal of McKenzie and Martin's treatment in cerebrospinal meningitis—that of introducing locally, by spinal puncture a highly immune serum obtained from the blood of patients who have recently recovered, or, in acute cases, of injecting the patient's own serum—to suggest that a somewhat similar method of sero-therapy might be tried in cases of trypanosomiasis and sleeping sickness. He discusses the theory only as a suggestion, but thinks that anything likely to prove beneficial should be tried in cases of sleeping sickness.

Lancet, London

May 15

10 *Spread of Tuberculosis—Heredity or Infection? J. G. Emanuel.
11 *X-Ray Treatment of Ringworm of the Scalp. J. M. H. Macleod.
12 *Histology of Rheumatic Endocarditis. C. Coombs.
13 *Simplified Method of X-Ray Application for Cure of Ringworm of the Scalp; Kienböck's Method. H. G. Adamson.
14 Lithokelyphos. J. B. Hall.
15 Sporadic Outbreak of Trichinosis in Devonshire. J. D. Harris.
16 Calcium Lactate in Treatment of Epilepsy. A. R. Littlejohn.
17 Traumatic Separation of the Upper Mandible. W. Bligh.
18 Pulmonary Tuberculosis Terminating with Acute Streptococcal Meningitis. E. H. R. Harries.
19 Hepato-Omental Bands Constricting the Stomach. G. A. Hawkins-Ambler.
20 Plea for Use of Antidiphtheritic Serum in the Laryngitis of Measles. A. A. Warden.

10. **Heredity or Infection in Tuberculosis.**—The stress laid by insurance companies on a death from tuberculosis in the family of the applicant, tends to perpetuate in the public mind the belief in the heredity of tuberculosis. Emanuel does not deny that both heredity and infection may play their respective rôles in the spread of consumption, but tuberculosis is so prevalent that any hereditary tendency to it falls into comparative insignificance. From the practical point of view, it is the various paths of infection that are of importance. He discusses the two doctrines and points out that, while the evidence in favor of infection is very strong, the scientific proof of heredity is well nigh impossible. It would require the records of many families in which several children of tuberculous parents had succumbed to tuberculosis in spite of early removal from their parents and early separation from one another, without possibility of exposure to other sources of infection. The results of experiments in guinea-pigs and of observations in orphan asylums where children are separated from an infected environment, give no support to the hereditary doctrine. He discusses infection through marriage, and through the dwelling, infection of fellow-laborers, through nursing, infection of health resorts, the influence of age and sex, bacillary transmission, latent tuberculosis, and hereditary predisposition, and concludes by stating that heredity can not explain (1) cases of phthisis occurring in the same family and obviously spreading from one member to another; (2) cases of phthisis conveyed from husband to wife and *vice versa;* (3) the prevalence of phthisis among the overcrowded poor; (4) the greater prevalence of phthisis among in-door as opposed to out-door employés; (5) cases of phthisis occurring among individuals brought into close contact by their daily avocations, in the home, office, workshop or factory; (6) the prevalence of phthisis among those engaged in tending consumptives; (7) the appearance of phthisis in places now used as health resorts, previously immune from the disease; (8) the mortality from tuberculosis gradually diminishing from infancy to 10 to 15 years and subsequently rising to a maximum at 45 to 55 years.

11. **X-Ray in Ringworm.**—Macleod's experience since 1905 has led him to the belief that:

1. The *x*-ray treatment of ringworm by the single dosage method, with the dosage regulated by the pastille, is practically safe and harmless.
2. It is a method of treatment of such delicacy that, even in the hands of an experienced operator, an accident such as an over-exposure might happen; but such accidents should be of such extreme rarity as not to discredit a mode of treatment possessing such obvious advantages.
3. Severe dermatitis followed by permanant baldness is the result of an over-exposure or is due to some accident, such as the exposing of an area the resistance of which has been lowered by the previous application of strong irritants before the inflammation has entirely subsided, or from overlapping.
4. Permanent baldness or delayed hair growth without marked dermatitis is the result of over-exposure, but it might, in rare instances, be due to some idiosyncrasy on the part of the patient, in the same way as the occurrence of alopecia areata after ringworm.
5. Macleod has been unable to obtain any definite evidence of injury to the brain by this method of treatment from his own cases, from the literature on the subject, or from anyone with experience of this treatment whom he has asked, and the experiments which he has done in this connection strongly negative the possibility.

12. **Rheumatic Endocarditis.**—Coombs states that the reaction to rheumatic invasion of the endocardium is characterized by the formation of large fibroblasts in groups and zones, which, so far as his experience goes, are constant in rheumatic, but absent from other, forms of endocarditis. The valvular inflammation of rheumatic carditis is set up, he asserts, by micro-organisms carried to the endocardium by the coronary arteries and their branches.

13. **X-Ray in Ringworm of the Scalp.**—Adamson describes the details of a simplified technic, the essential points in which are irradiation at right angles to the direction of the irradiation of adjacent areas, and to aim not at a point in the center of the vertex, of the lower occiput, or of the sides of the scalp, but toward the outer margin of these areas, so that half the dose goes on to the scalp and half on to the shield protecting the face and neck. If these precautions are taken there is no risk of over-exposure at the overlapping margins of the rayed areas. In practice the dosage works out so nicely, that every part receives an equal amount and depilation is total and complete, without anywhere a sign of over or under exposure. In theory, according to the well-known laws that the quantity of rays received at any point exposed varies (1) inversely with the square of the distance from the source; and (2) directly with the size of the angle of incidence, the dose received by any part of the scalp is found to be with mathematical accuracy, one pastille dose.

Medical Press and Circular, London

May 12

21 Alcoholic Insanity. J. O. Donelan.
22 Rupture of the Uterus During Labor. T. B. Grimsdale.
23 *Ought Tea, Coffee, and Chocolate to be Forbidden in Uricemia? A. Martinet.
24 Disinfection of Houses in India. S. C. Hormusjee.

23. **Coffee, Tea, etc., in Uricemia.**—Martinet concludes that:

1. Alkaloidal beverages, especially tea, coffee and chocolate, should be forbidden for uricemia subjects, especially those whose urine spontaneously precipitates uric acid.
2. Nevertheless, the action of coffee and chocolate appears to be less injurious to the organism than that of meat and the legumens, the latter appearing to predominate; for although uricemia manifestations are specially frequent in meat-eating races or tea drinkers (Anglo-Saxons), they seem to be rather rare in people who are vegetarians, even though they drink tea and coffee (Japanese, Hindus, Arabs, etc.).

In short, tea, coffee and chocolate may be allowed in moderation when the food is principally vegetarian and hypopurinic; but they should be strictly forbidden when the diet comprises much meat, which is the case in most instances of "excretors of uric acid."

Clinical Journal, London

May 12

25 Hemianesthesia of the Dissociated Form. W. P. Herringham.
26 Fistula and Diseases of the Rectum. L. Mummery.
27 *Pernicious Anemia (concluded). H. French.

27. **Pernicious Anemia.**—French concludes his article, begun in the last issue. The points he has sought to bring out are: 1. Slight evening pyrexia is seldom absent in pernicious anemia cases that are decidedly ill. 2. Pigmentation within the mouth, of precisely similar character to that seen in Addison's disease, may occur in pernicious anemia cases treated with arsenic. 3. *The spleen is to be felt in about one-third of the cases, and* is really enlarged. 4. The nerve symptoms are not at all uncommon in pernicious anemia. 5. The color index of the blood, though typically higher than when an advanced stage of the disease has been reached, is not always or continually high especially during a period of improvement in the patient's condition, when it may be actually low. Lastly, pernicious anemia, as we know it, is very possibly only a late and almost incurable stage of a disease that it is to be hoped will some day be recognizable early enough to be cured.

Intercolonial Medical Journal of Australasia, Melbourne

March

28 *Syphilis. H. B. Allen.
29 *Frequency and Intensity of Congenital Syphilitic Infection in Children. P. B. Bennie.
30 Syphilis and Nervous Disease. A. Davidson.
31 Treatment of Syphilis. W. McMurray.
32 The Larynx and Early Diagnosis of Phthisis. W. K. Hughes.
33 Idem. S. W. Ferguson.
34 Tuberculous Glands Treated by X-Rays. T. G. Beckett.
35 Radium Treatment. H. Lawrence.

28. **Syphilis.**—Allen says that the time-honored diagnostics of syphilis leave much to be desired. The great marks of syphilis are in the arterial wall, to which the spirochetes soon betake themselves in experimental syphilis. Allen sets forth the following conclusions concerning syphilis and the circulatory system: First, aortic aneurism, in the great majority of cases, is due to syphilis, and aneurism is very prevalent in Victoria, and very markedly prevalent among women, so that in 1906 there were 31 deaths recorded from aneurism in women, as against 57 deaths in men. *Second, aortic regurgitation is mainly due to syphilis, either through chronic endocarditis or atheroma, or a combination of these conditions.* Third, a large proportion of cases of mitral obstruction must be attributed to syphilis. Fourth, syphilis frequently induces thickening of the fibrous rings at the bases of the valves. Fifth, subject to unimportant exceptions progressive chronic myocarditis is a syphilitic affection. Sixth, syphilis is a potent cause of coronary atheroma, and thus contributes to the gravity of many cases of angina, or leads to myomalacia and rupture of the heart; while syphilitic arteritis at the mouths of the coronary arteries often causes cardiac ischemia, claudication and syncope. Apart from dust disease and chronic tubercle, syphilis is the great cause of interstitial pneumonia. The multiple fibroses of serous membranes often ascribed to tubercle are, in Allen's experience, more frequently due to syphilis. Surgeons have to bear in mind syphilitic arteritis and thrombosis, not only in *senile gangrene*, but in the necroses of young people, in Raynaud's disease, and superior mesenteric thrombosis. A chronic syphilitic inflammation is often the forerunner of a true malignant growth. The obstetrician needs to know the signs of syphilis in the umbilical cord and placenta. In the cord, the blood vessel walls are thickened and sclerosed, and in the fresh section white fibrillar tissue spreads from the thickened vessels into Wharton's jelly. The two arteries are constantly affected. In the placenta there may be opaque white patches in the surface membrane, with subjacent fibrosis. Gummata are sometimes found. The mother is always infected, though she may show no outward sign of the disease. The gynecologist must reckon with gummata in the cervix and upper vagina, and with slower forms of ulceration and fibrosis, chronic metritis, salpingitis and mastitis, in all of which syphilis may play a part. Allen is convinced that the main mortality in children from slight causes is due to inherited syphilis, in which precocious atheroma often plays a part. He suggests that the enormous prevalence of fibrosis of organs and sclerosis of arteries in later life, is to be attributed, at least partly, to the evolution of early fibrotic changes. A stringent marriage law for syphilitics, administered with adequate firmness, is urged.

29. **Congenital Syphilis in Children.**—Bennie discusses this question at some length and concludes that if either parent has ever had syphilis, no matter how well treated, there is a syphilitic taint in the child subsequently born. Fully 10 per cent. of the children are infected, and this small percentage affords material for more than half the pediatric work and includes nearly half of the fatal cases. Speaking generally, the chances of death before puberty are nearly seven times greater for the syphilitic than for the non-syphilitic. Infected children should, if possible, be treated in all illnesses for the syphilitic factor. A course of antisyphilitic treatment should precede operation on congenital syphilitics.

Annales de Médecine et Chirurgie Infantiles, Paris

April 15, XIII, No. 8, pp. 253-288

36 *Milk of One Cow versus Mixed Milk for Infant Feeding. (Lait individuel ou lait de mélange.) E. Gaujoux.
37 *Prophylaxis and Physiotherapy of Tuberculosis in Children. H. Keller.

36. **Milk of One Cow Versus Mixed Milk in Infant Feeding.**—Gaujoux thinks that there is no advantage in using the milk of one cow rather than the mixed milk unless that one cow is kept apart from the others under specially favorable conditions and constant supervision of its food, physical condition and physiologic functions, after eliminating tuberculosis with the tuberculin test.

37. **Prophylaxis of Tuberculosis in Children.**—Keller declares that country air and hygienic surroundings are required by the children of the poor in winter even more than in summer, as the children are housed more and the hours of sunlight are fewer. Well-located and well-conducted sanatoria for children, both of well-to-do and of poor families, would prove invaluable to promote hygiene, discipline and order and teach the children how to ward off disease. Such a sanatorium is the best school for both the tuberculous and the predisposed. He emphasizes the fact that prophylaxis of tuberculosis in the young will reduce its frequency in adults, and that measures to eradicate alcoholism will do away with its most prolific source.

Archives Générales de Médecine, Paris

April, CC, No. 4, pp. 193-256

38 Accidental Subcutaneous Emphysema in Two Cases of Valve Pneumothorax a Compensating Process. (Rôle compensateur de l'emphysème sous-cutané accidentel, dans deux cas de pneumothorax à soupape; obligation de ne pas compter sur cet effet favorable.) M. Perrin.
39 *Perforation of the Esophagus. M. Cléret.
40 *Electric Sterilization of the Air. A. Sartory.

39. **Perforation of the Esophagus.**—In the case described, a cancer in the esophagus was unsuspected until perforation occurred. The eccentric rather than the concentric development of the lesion prevented disturbances in the passage of the food into the stomach. The patient was a man of 45 with a history of early syphilis and excessive use of liquor, but robust

until recently, when symptoms of dyspepsia disturbed him for a time, recurring twice. After an interval of three months of freedom from symptoms, the pain in the right hypochondrium returned, with anorexia and rapid emaciation, and the perforation in the esophagus revealed the malignant nature of the trouble.

40. **Electric Sterilization of the Air.**—Sartory's apparatus draws in the cold air, heats and brings every molecule in contact with the electricity, passing the air on and out through a kind of chimney at the top of the apparatus. Air thus treated is rapidly sterilized, three hours being sufficient to sterilize completely the air in a room containing 150 cubic meters of air; from 50,000 the number of bacteria drops to 5,000 in one hour and frequently to zero by the end of the second hour. He relates experiences with this sterilizer in the crowded waiting room of a free public dispensary and in the smaller consultation rooms, the tests showing entire success. Sterilization is complete much sooner in comparison in the smaller rooms.

Presse Médicale, Paris

May 5, XVII, No. 36, pp. 313-320

41 *Chancroidal Processes at the Anus and Anal Canal. (L'anite chancrelleuse.) P. Ravaut and B. Bord.

May 8, No. 37, pp. 321-336

42 *Buried Protheses in Treatment of Fractures. (Technique et indications de la prothèse perdue dans le traitement des fractures.) A. Lambotte.
43 Specific Antibodies in the Serum in Various Streptococcus Lesions. M. R. Castex.
44 Scoliosis from Malformation of the Vertebræ. P. Desfosses.

41. **Chancroidal Ulceration of the Anus.**—Ravaut and Bord insist that the anal region should be regarded as entirely distinct from the rectum in its response to infection, as well as from the anatomic and histologic standpoints. The gonococcus locates by preference on the rectal mucosa, sparing the anus, while chancroidal infection remains limited to the anal region, causing a special process, the characteristics of which they describe in detail, with four illustrations. Examination is so painful that they use spinal anesthesia for the purpose, injecting merely one drop and a half of a 50 per cent. solution of cocain hydrochlorate. This solution does not diffuse, but remains limited, inducing analgesia only in the genito-perineal-anal region. The chancroidal ulceration here requires the same treatment as at other points unless defecation is so painful that direct cauterization becomes necessary under spinal anesthesia. If there is a tendency to stenosis, progressive dilatation will soon correct it and may be indicated as a preventive measure.

42. **Buried Protheses for Fractures.**—Lambotte gives a number of illustrations of the small gilt or nickel-plated steel splints which he screws directly on the bone with half a dozen small screws, working through a long incision in the soft parts, as he explains in detail. The method has peculiar advantages for fractures of the forearm or thigh bones. With complete asepsis the prothesis is tolerated indefinitely by the bone tissue. He never touches the screws or plate with his hand, having devised special instruments for the purpose. The wider his experience, the greater his satisfaction with this method of treating certain fractures.

Revue de Médecine, Paris

April XXIX, No. 4, pp. 257-336

45 *Constitutional Toxic Dyscrasia Responsible for Conditions Known as Neurasthenia and Psychasthenia. Bernheim.
46 *Etiology, Pathogenesis and Treatment of Migraine. L. Jacquet and Jourdanet.
47 *Absence of Argyll-Robertson Sign in Certain Cases of Tabes. J. Heitz and Haranchipy.
48 Seventy-nine Cases of Paralysis of Recurrent Nerve. (Pathogénie et importance séméiologique de la paralysie recurrentielle.) E. Guder and R. Dufour.
49 Psychic Disturbances in Parathyroid Syndromes. Laignel-Lavastine.
50 Functional Disturbances and Dissociations with Abnormal Thyroid Functioning. (Discordances et dissociations fonctionelles dans l'évolution morbide des états thyroïdiens.) G. Sardou.

45. **Toxic Dyscrasia Responsible for Neurasthenia and Psychasthenia.**—Bernheim has applied suggestion extensively during the last quarter century in the conditions known as neurasthenia, psychasthenia and psychoneurasthenia, and this experience has shown that there are two well-defined forms of neurasthenia which differ little except in their response to suggestion. One form occurs after overwork and emotional and nervous strain, and such patients are easily cured by distractions and suggestion. The other form is the result of the action of some toxin or toxins circulating in the blood, with special affinity for certain tracts in the nervous system. This true neurasthenia is dependent on some organic or toxic disturbance, frequently revealed by the exaggeration of the tendon reflexes. Neurasthenia apparently purely functional may be the precursor of some permanent spinal affection, judging from experiences in his own practice. In three recent cases of intense neurasthenia the patients displayed a tendency to fall over backward when they stood up or tried to walk. This symptom indicates some organic or toxic localization in the cerebellum, confirming his assumption that psychoneurasthenia is not an imaginary affection nor autosuggestion nor a psychoneurosis, but has a toxi-infectious basis, generally some constitutional autotoxic dyscrasia grafted on an inherited diathesis, which may be roused to activity by some emotional or traumatic shock or physiologic strain or casual infection, especially influenza. Suggestion aids the functional elements in the syndrome, but is powerless against the underlying dyscrasia of the nervous system.

46. **Migraine.**—Jacquet and Jourdanet ascribe migraine to too rapid eating in the majority of cases, although in others the liver, the menses, mental strain or eye defects may be responsible. The main point in treatment is to make the patients eat in a more leisurely manner. It is difficult to enforce this, as old habits must be modified, but it is the only certain means of cure. Reading at table must be forbidden, and the patient must have a watch beside his plate. Migraine, they think, is a crisis of objective hyperesthesia of the brain substance, especially of the cortex, with variable nervous radiations, all under the dependence of stimuli emanating from various organs, chiefly from the stomach irritated by imperfectly masticated food swallowed in too short a time, inducing overfunctioning. He summarizes the details of a large number of cases which sustain this conception and which illustrate the prompt benefit derived from treatment based thereon.

47. **Pupil Reaction to Light Retained in Tabes.**—Heitz and Haranchipy state that 15 out of 48 tabetic patients showed some response to the action of light on the pupil. In some the response was practically normal. The Argyll-Robertson sign was also absent in nearly the same proportion in 29 cases in another hospital group and in 12 of 33 in general practice. The persistence of the pupil reaction was evidently due to some special localization of the lesions in the meninges.

Archiv für klinische Chirurgie, Berlin

LXXXIX, No. 1, pp. 1-279. Last indexed May 8, p. 1549

51 *Further Experiences with Operations on the Biliary Passages. (Operationen an den Gallenwegen.) W. Körte.
52 *Location of Appendix Vermiformis. (Lage des Wurmfortsatzes.) R. Liertz.
53 *Fifty-nine Notable Operations on the Biliary Apparatus. (Bemerkenswerthe Operationen am Gallensystem aus den Jahren 1907 u. 1908.) H. Kehr.
54 Proliferation of Fat Tissue and Villi in the Knee. (Ueber Fettgewebs- und Zottenwucherungen im Kniegelenk.) C. Rammstedt.
55 *Imperforate Anus. (Atresia ani.) G. Ziemendorff.
56 *Tubular and Cystoid Dermoids at End of Spine. (Die congenitalen Hauteinstülpungen am unteren Leibesende.) P. Klemm.
57 Negative Action of Fibrolysin on Scar Tissue. (Experimentelle Untersuchungen über die Wirkung des Fibrolysin auf das Narbengewebe.) W. Brandenburg.

51. **Operations on the Biliary Passages.**—Körte analyzes his experiences during the last five years, summarizing forty of the more interesting operations. He does not attempt to operate in case of carcinoma of the pancreas when sure of the diagnosis. One patient has been cured for nearly four years since removal of a carcinoma of the outer end of the common bile duct. The small tumor obstructed the passage of bile. It was removed at an early stage, before the obstructive jaundice had lasted long enough to debilitate the patient, a woman of 47.

52. **Location of the Appendix.**—Liertz gives illustrations of a number of interesting findings in regard to the appendix

observed in the course of 2,002 autopsies or at appendicectomies, including some from the literature. The position of the appendix in the fetus and in children, the origin and length, and the relations of the appendix with other organs are discussed in detail, with illustrations.

53. **Unusual Gallstone Operations.**—Kehr presents and discusses 59 of the more notable operations on the biliary system in the 200 he has performed in the last two years, although he admits that he did not learn anything essentially new from them.

55. **Imperforate Anus.**—Ziemendorff describes a case and reviews 114 which he has found in the literature. He comments on the strange fact that the prognosis has grown graver of late years, and also that rebellious constipation is a frequent sequel even when the trouble has been removed by effectual operation and stenosis or cicatricial obstruction has not developed later. The best results have been obtained with what he calls proctoplastic operations, but these require great perseverance, extensive mobilization of the intestine and careful suture to the skin. The results are good and permanent if other circumstances beyond control do not annul the results, which only too often happens. The 114 cases are tabulated under twenty-four headings. Proctoplastic operations for atresia of anus, rectum, urethra and vagina show a mortality of 26.9 per cent. for 78 cases and of 40 per cent. in 45 cases of atresia of the anus or rectum alone, while the mortality was 58.8 per cent. in the 17 cases with fistula. Colostomy has a record of 79.3 per cent. mortality in 29 cases, and simple puncture or incision of 28.6 per cent. in 7 cases. These statistics apply to the mortality during or soon after the operation. In 29 cases of atresia under observation for three months at least, 55.2 per cent. of the patients were free from disturbances, 17.2 per cent. still had some slight trouble, and 10.3 per cent. had died. The ultimate outcome is probably still more disappointing; the infant's peritoneum does not heal readily and the child's crying and restlessness interferes with the healing of the sutured wound or bursts it; such operations thus having a less favorable prognosis in infants than in adults.

56. **Congenital Fistula or Channel in Sacral Region.**—Klemm regards the congenital dimple or hole reaching inward toward the sacrum as a tubular dermoid, and reports five cases in which this congenital cavity became infected, with abscess formation, the constantly recurring disturbances finally necessitating excision of the parts involved. In one of these cases the trouble was an actual cystoid dermoid tumor with a system of fistulas, a multitubular dermoid. In another multitubular dermoid the cystoid growth sent out processes on each side, displaying active postembryonal growth. The excision should always extend down to the bone to ensure removal of all the dermoid tissue.

Centralblatt für die Grenzgebiete der Med. und Chir., Jena

XII, No 7, pp 241-288. Last indexed May 15, p 1628

58 *Internal Measures for Arresting Hemorrhage, especially in Hemophilia (Die neueren innerlichen Blutstillungsmethoden, vorzuglich bei Hamophilie, mit besonderer Berucksichtigung der Verwendung von Serum) K Wirth. Commenced in No 5

58. **Serum Treatment of Hemorrhage.**—Wirth has found 45 articles on the subject of the internal methods of hemostasis. He reviews them all, with special regard to the use of serum in hemophilia. His analysis shows that the results of gelatin, calcium, strontium and ovarian and other organ therapy have been disappointing, although an occasional success has been realized. Far better results have been obtained with subcutaneous or intravenous injection of fresh animal serum, the method inaugurated by Weil; although Bienwald in 1897 reported the arrest of hemophilic hemorrhage by local application of normal human blood. He drew some blood from the child's grandmother and filled the traumatic wound in the left temple with the blood as a last resort. The foreign blood coagulated in the wound and the hemorrhage was arrested. Twenty cases have been published in which injection of serum arrested hemophilic hemorrhage more or less completely. To date only two cases have been reported in which no benefit was derived (Bonzani and Mauclan). The effect of the serum does not last over a month. The local action of the serum is also considerable, sometimes rendering repetition of the injections unnecessary. Wirth has had considerable experience with this treatment, which he reports in detail. One patient was a boy of 14, known to be hemophilic, with persisting hemorrhage from the nose, throat and gums, which stopped under application of diphtheria antitoxin locally and injections of from 15 to 20 c.c. No by-effects were observed, and the hemorrhagic tendency was kept under complete control by further injections, once a month, for six months. In another case a hemophilic girl of 15 with metrorrhagia and epistaxis was injected with horse serum and the uterus and vagina were tamponed with gauze dipped in normal serum, with prompt benefit. He has thus treated twenty-three patients with hemorrhage from various causes, and is convinced that the injections of serum are actually an efficient means for treatment of hemorrhage. This method of treatment is indicated above all in affections in which the coagulating power of the blood is reduced, although it may prove effectual in other forms of hemorrhage. As a rule, 20 c.c. of serum is enough, but 40 c.c. may be injected without harm. No disturbances were observed in his cases, not even when the injections were repeated. The subcutaneous route should be preferred unless the intravenous is urgently required. Horse serum seems preferable, and ordinary diphtheria antitoxin can be used, selecting the vials with the latest date, and applying the serum also locally to the bleeding spot. He calls attention especially to the subsidence of skin and mucous membrane hemorrhages in a case of cholemia with advanced cirrhosis of the liver. One new-born infant, bleeding freely from nose and mouth, was treated by local application of sponges dipped in horse serum, which rapidly controlled the hemorrhage. In some cases hemorrhages in the lower part of the bowel or from hemorrhoids were arrested by injection of 10 c.c. of beef or horse serum into the bowel.

Deutsches Archiv fur klinische Medizin, Leipsic

XCVI, Nos. 1-2, pp 1-215 Last indexed May 8, p 1551

59 Cell Inclusions: Peculiar Bodies found Included in Leucocytes (Leukocyteneinschlusse) R May

60 Two Cases of Myeloid Chloroma Leukemia, with Autopsy. H C Jacobaeus

61 Relations between Leucocytosis and "Antiferment Reaction" of the Blood Wiens and H. Schlecht

62 "Antiferment Reaction" of Blood (Ueber die "Antiferment reaktion" des menschlichen Blutes) Wiens

63 *Influence of Salt on Nephritic Edema (Einfluss der Kochsalzzufuhr auf die nephritischen Oedeme) J W Blooker

64 Idiopathic Diffuse Miliary Vascular Disease (Angiomatosis miliaris) L Steiner and H Voerner.

65 *Pathologic Anatomic Differentiation of Mitral Stenosis and Mitral Incompetency (Diagnose der Mitralklappenfehler auf Grund der Schliesspt . A Schabert

66 The Amount of Blood Expe... nt each Contraction and Tests of Heart Functioning (Ueber Schlagvolumen und Herzarbeit des Menschen) A Muller

67 *Influence of Alcohol on Blood Pressure and Heart Functioning in Fever (Einfluss des Alkohols auf den Blutdruck und die Herzarbeit in pathologischen Zustanden, namentlich beim Fieber) A Dennig, Hindelang and Grunbaum

68 Laceration of Papillary Muscles of Mitral Valve (Fall von Papillarmuskelzerreissung) A Dennig

69 Opsonic Index and its Clinical Importance in Staphylococcus Disease (Zur opsonischen Methodik nebst Untersuchungen uber ihre klinische Verwertbarkeit bei Staphylokokkenerkrankungen) A Bohme Id in Effusions Id

63. **Influence of Ingestion of Salt on Nephritic Edema.**—Blooker gives the metabolic findings in six cases of nephritis showing that the edema in such cases is only rarely the result of primary retention of salt. In one case copious intake of salt seemed to do harm, but in several cases restriction of salt did not show the least influence on the dropsy, while diarrhea and sweating gave great benefit. Only one patient showed a favorable effect from the salt-free diet, but this one success should encourage its adoption among other therapeutic measures. Other procedures are generally equally effectual; when these fail, the salt-free diet generally fails too. Besides this, the salt-free diet is generally repugnant to the patients. It should never be ordered until the conditions in regard to elimination of salt have been determined. He adds that the same purpose is accomplished with milk, weak tea, coffee and cocoa, rice and cereals, without inflicting too great privations

on the patients. Only when they weary of a milk diet and it is known that salt is harmful, should the strict Widal diet be instituted. Blooker treats patients with bed rest and exclusive milk diet in the parenchymatous form of nephritis, allowing the ordinary diet in the interstitial form, with diuretics and heart tonics as needed. If the dropsy does not subside, he gives 10 gm. of salt every day for a few days and watches the weight. If the weight increases, a salt-free diet should be ordered. If not, he pays no further attention to the salt in the food, but tries what diaphoresis or catharsis will accomplish. Different diuretics should be given a trial, as one may succeed when others fail. If the edema requires tapping, this should be done without hesitation. Copious ingestion of fluids caused no disturbance in most of his patients, but he advises not to go above two liters a day.

65. **Pathologic Anatomy of Mitral Defects.**—Schabert expatiates on the valuable retrospective information to be derived from combining the test of pouring water through the mitral valve with determination of the absolute and relative weight of the ventricle in relation to the other parts of the heart. In his autopsies in 11 cases of pure mitral stenosis, 6 of the subjects were over 50 years old. In 9 cases of mitral insufficiency, pure or combined, none of the subjects had reached the age of 50. The stenosis seems to be the terminal phase of the insufficiency. He was surprised at the number of cases of pure stenosis encountered and the long survival. With pure mitral insufficiency there is always hypertrophy of the left ventricle, determined most readily by weighing the different parts of the heart separately.

67. **Influence of Alcohol on the Blood Pressure.**—In the research reported, 956 measurements of the blood pressure in 62 patients were taken before and after ingestion of alcohol. The results are tabulated, the general conclusion being that alcohol should be given sparingly in pathologic conditions.

Deutsche medizinische Wochenschrift, Berlin

May 6, XXXV, No. 18, pp. 785-824

70 Research on Puerperal Fever during the last Twenty-Five Years. (Wege und Umwege zur Erforschung der Genese des Kindbettfiebers im letzen Vierteljahrhundert.) F. Ahlfeld.
71 *Relations between Lymphatism and Scrofula. (Beziehungen des Lymphatismus zur Skrofulose.) E. Moro.
72 Myxofibroma of the Temporal Bone with Multiple Paralysis of Cranial Nerves. (Fall von Myxo-Fibrom des Felsenbeins mit multipler Hirnnervenlähmung.) D. Schwabach and M. Bielschowsky.
73 *Simple Non-Tuberculous Induration of the Apex from Mouth Breathing. (Zur Kenntnis der einfachen nichttuberkulösen Kollapsinduration der rechten Lungenspitze bei chronisch behinderter Nasenatmung.) G. Richter.
74 Marmorek's Serum in Dispensary Treatment of Tuberculosis. (Einjährige ambulante Behandlung mit Antituberkuloseserum Marmorek.) C. Thorspecken.
75 Traumatic Appendicitis. (Zur Frage der traumatischen Epityphlitis.) H. Wohlgemuth.
76 *Mercury Oxycyanid in Internal Treatment of Syphilis. (Hydrargyrum oxycyanatum als Internes Antisyphiliticum.) Schulte.

71. **Relations Between "Lymphatism" and Scrofula.**—Moro was surprised to find that in a number of cases of pronounced lymphatism, resembling scrofula in every respect, the tuberculin reaction was negative. He has further investigated the previous history in fifty cases of scrofula giving a positive reaction. From the facts observed he is convinced that what we call "lymphatism" is a constitutional condition, and, if tuberculous infection is superposed, the result is scrofula. The latter does not develop without the "lymphatic" soil, and the tuberculin test is sometimes the only means to distinguish between lymphatism and scrofula. The distinguishing feature of the lymphatic constitution is the exceptional tendency to inflammatory reactions of an obstinate and recurring nature, in which the lymphatic tissue takes the most prominent part, primarily or secondarily. All this is found in scrofula, but it is not the result of the tuberculous infection. Such children are peculiarly sensitive to tuberculosis and after infection are exceptionally sensitive to the tuberculin test.

73. **Non-Tuberculous Induration of the Apex with Impeded Breathing.**—Richter warns that mouth breathers are liable to develop a simple, non-tuberculous "collapse induration" in the apex of the right lung which simulates a tuberculous process, although it is merely the result of insufficient respiration. Normal conditions are liable to be restored when the adenoid growths or other obstructions are removed. It is especially important to differentiate this condition so that these patients will not be sent to sanatoria where they are liable to acquire a superposed tuberculous infection. Blümel declares that fully 5 per cent. of the 1,700 patients at the Görbersdorf sanatorium in the last few years were sent there by mistake as the apical lesions were not tuberculous.

76. **Mercuric Oxycyanid Internally in Syphilis.**—Schulte has used this drug exclusively for internal treatment of syphilis in the last twelve years. He orders 100 pills from 0.5 gm. (7.5 grains) of the oxycyanid in licorice powder, 2 pills 3 times a day, only after eating. He has never seen any disturbances from this drug, given at least in 1,000 cases, except that stomatitis is liable to develop if the mouth is not taken care of. He cites four typical cases to show the prompt and invariable benefit, and urges others to try the oxycyanid.

Jahrbuch für Kinderheilkunde, Berlin

April, LXIX, No. 4, pp. 375-504

77 *Prophylaxis of Diphtheria in Schools. (Bekämpfung der Diphtherie in den Schulen.) R. Schultz.
78 *Fatal Mushroom Poisoning. (Lorchelintoxikation.) E. Lövegren.
79 *Rare Type of Paralysis after Injury during Delivery. (Seltener Lähmungstypus nach Geburtstrauma: Hämatomyelie.) T. Gött.
80 *Clinical Importance of Elimination of Phosphorus in Urine of Breast-fed Infants. (Phosphorausscheidung im Harn beim Brustkind.) L. Moll. Commenced in No. 3.

77. **Diphtheria in the Schools.**—Schultz relates experiences and presents arguments to sustain his view that when a case of diphtheria develops among the children of a certain room in school, all the children in the room should be examined bacteriologically for diphtheria bacilli, or at least those who have been having sore throat. Positive findings should exclude the child from school but he should be allowed to return if two more bacteriologic examinations give negative findings. If the child keeps well for four weeks, or six weeks at longest, he should be allowed to return to school, notwithstanding positive bacteriologic findings, but should be given a seat apart from the other children. If anything develops suggesting that he is the source of new infection he should be excluded from the school again. By this supervision and control of the known and suspicious cases of diphtheria, it is possible to stamp out effectually all incipient epidemics.

78. **Mushroom Poisoning.**—Lövegren reports the postmortem findings in a case of poisoning from the mushroom, *Gyromitra s. Helvella esculenta*, which is not usually considered poisonous. Several members of the family were made ill by eating the mushrooms and a little girl died within twenty-four hours. The kidneys showed microscopic changes similar to those observed in nephritis after diphtheria.

79. **Paralysis After Trauma During Delivery.**—Gött reports three cases of paralysis in children who had been delivered by traction on the feet. The vertebræ seem to be able to stand traction without injury, but the spinal cord suffers as blood vessels are liable to be lacerated. Such hemorrhages generally soon prove fatal, but, if not, flaccid paralysis develops with complete atrophy of the muscles most involved and extensive sensory disturbances, absence of the reflexes, bladder disturbances and sometimes respiratory anomalies. The children generally succumb to colicystitis. The principal feature of this form of paralysis is the thickening of the meninges consequent on the hemorrhage, causing compression of the roots of the nerves passing to the lower half of the body.

80. **Importance of Elimination of Phosphorus in the Urine of Infants.**—Moll ascribes great importance to the phosphorus content of the urine, the large proportion eliminated in disease and its subsidence during convalescence. The tolerance for food can be determined from the urine phosphorus findings which are thus a reliable index for the diet. As the proportion of phosphates declines, the clinical picture improves. In acute gastroenteritis if the proportion of phosphates in the urine is not materially reduced by a day or two of fasting, the prognosis is bad. He is convinced that the presence of organic phosphorus in the urine of breast-fed

fifteen days, as ordered, but by mistake she took at one dose in the morning the entire daily dose which should have been fractioned and taken after meals. She commenced to lose weight at once and the goiter also subsided, but symptoms of exophthalmic goiter developed with a recurrence of an old knee affection and crural adenitis and the goiter returned to its former size. In the course of several months these symptoms gradually subsided and the patient is now comparatively well. The second patient had arthritis, a cardiac defect and asthma, in addition to the goiter and considerable obesity. Potassium iodid was given tentatively but the patient rapidly lost weight and the heart symptoms grew more pronounced although the asthma vanished, and tremor was observed. No change was apparent in the goiter and the iodid treatment was soon suspended, but the symptoms and general malaise persisted for several months. He accepts a special susceptibility in these cases to the action of the iodid and calls attention to the onset of symptoms suggesting hyperfunctioning of the thyroid even while it was rapidly subsiding in size. This throws light on the cases of exophthalmic goiter without enlargement of the thyroid, and illustrates that the hyperfunctioning of an organ is not necessarily accompanied by unusual size.

119. **Nervous Symptoms with Ankylostomiasis.**—Signorelli reports three cases in which hookworm disease was accompanied by a meningeal, a neuralgiform or a convulsive, epileptiform syndrome. The patients were, respectively, 10, 17, and 23 years old.

Upsala Läkareförenings Förhandlingar

XIV, Nos. 3-4, pp. 205-348. Last indexed Feb. 20, p. 674

120 Deformities of the Skull, especially the Artificially Deformed. III. (Om kraniala deformationer, särskildt den artificiella bathry- och clinocefali.) G. Backman.

121 *Primary Actinomycosis of the Salivary Glands. (Om primär spottkörtelaktinomykos.) G. Söderlund.

122 Experiences with Operative Treatment of Malignant and Non-Malignant Gastric Lesions and Gallstone Operations. G. Ekehorn.

123 *Operative Treatment of Prolapse of the Rectum in Children. (En enkel men rationel operative behandlingsmetod af prolapsus recti hos barn.) Id.

121. **Primary Actinomycosis in Salivary Glands.**—In one of the two cases reported by Söderlund, a scrap of a head of barley was found sticking in the tissue of the sublingual gland, the outer end in one of its excretory ducts. The patients were a woman of 65 and a boy of 10, and in both the small hard tumor had developed in the course of a month or two. It was ascribed to a tuberculous origin in one case until after excision and microscopic examination.

123. **Method of Curing Rectal Prolapse in Children Without the Knife.**—Ekehorn passes a needle through the soft parts, at one side of the sacrum, until the tip emerges in the rectum where the operator's other hand threads the needle with a piece of stout silk suture material. This end of the silk is then drawn back and out, and the needle is introduced again in the same way on the other side of the sacrum, where it is threaded with the other end of the silk gut which is drawn out in the same way and the two ends are tied together over the sacrum. This brings the rectum up against the sacrum and as adhesions form the tendency to prolapse is permanently corrected without any cutting operation. In the four cases reported, the silk was removed after two weeks; the patients were between 2 and 5 years old, and there has been no sign of recurrence in any instance. It is not necessary to keep the patients in bed after this simple procedure.

Books Received

Digest of Comments on the Pharmacopeia of the United States of America. [Eighth Decennial Revision.] 1905. By Murray Galt Motter and Martin I. Wilbert. Hygienic Laboratory. Bulletin No. 49. March, 1909. Paper. Pp. 295. Washington: Government Printing Office, 1909.

Daniel Drake and His Followers (1785-1909). Historical and Biographical Sketches. By Otto Juettner, A.M., M.D., Fellow of the American Academy of Medicine. Cloth. Pp. 496, with illustrations. Price, $5. Cincinnati: Harvey Publishing Co.

Commercial Law Simplified. By Charles C. Simons, of the Detroit Bar. Leather. Pp. 510. Price, $5. Detroit: The Business Man's Publishing Co.

Hydrotherapy. A Brief Summary of the Practical Value of Water in Disease. By William H. Dieffenbach, M.D., Professor of Hydrotherapy, New York Homeopathic Medical College and Flower Hospital. Cloth. Pp. 267, with illustrations. Price, $3. New York: Rebman Co.

Experimental Pharmacology. A Laboratory Guide for the Study of the Physiologic Action of Drugs. By Charles Wilson Greene, Ph.D., Professor of Physiology and Pharmacology, University of Missouri. Edition 3, with 37 illustrations. Cloth. Pp. 76. Price, $1. Philadelphia: P. Blakiston's Son & Co., 1909.

Medical and Surgical Report, City of New York Department of Public Charities, City Hospital, Blackwell's Island. No. 1. 1909. Cloth. Pp. 237, with illustrations.

Medical and Surgical Report of the Presbyterian Hospital in the City of New York. Vol. VIII, December, 1908. Edited by John S. Thacher, M.D., and George Woolsey, M.D. Boards. Pp. 371, with illustrations.

Atlas der rectalen Endoskopie. Von Dr. Arthur Foges, Wien. 1. Teil. 40 Mehrfarbige Lichtdruckbilder auf 20 Tafeln und 7 Abbildungen in Texte. Paper. Pp. 62. Price, 14 marks. Wien: Urban & Schwarzenberg, 1909.

New Patents

Recent patents of interest to physicians:

918975. Eye-shade. S. H. Dice, Newark, N. J.
919138. Surgical needle. C. A. Drake, West Orange, and S. W. Dodd, Montclair, N. J.
918991. Invalid-bed. F. L. Gaines, Grand Rapids, Mich.
919152. Surgical needle holder. C. O. Gause, New Sharon, Iowa.
919159. Stretcher. F. L. Goddard, Douglas, Alaska.
919049. Purifying potassium bitartrate. M. F. Martinez, Jarez de la Frontera, Spain.
918762. Atomizer and nebulizer. C. W. Meinecke, Jersey City, N. J.
918389. Apparatus for separating nitrogen and oxygen from mixtures containing them. R. P. Pictet, Berlin, Germany.
919250. Bandage and the like. D. Sarason, Berlin, Germany.
918774. Hypodermic needle. G. R. Schimmel, Detroit.
918612. Separating liquid from solid fatty acids. E. Twitchell, Wyoming, Ohio.
920023. Instrument case. M. S. Chism, Philadelphia.
919560. Sanitary calcimine. C. Ellis, Larchmont, N. Y.
919710. Sterilizer. A. J. Gero, Waterville, Me.
919875. Suspensory. G. C. Johnson, Dillon, S. C.
919445. Ozonizer. A. Lohman, Philadelphia.
919918. Syringe. P. J. McElroy, Cambridge, Mass.
919614. Hot-water or ice bag. C. W. Meinecke, Jersey City, N. J.
919649. Vibrator. H. M. Sciple, Minneapolis.
919397. Obstetrical instrument. W. M. Thomas, North English, Iowa.
919406. Surgeon's glove. H. W. Warren, Cuyahoga Falls, Ohio.
920711. Disinfecting device. G. W. and C. W. Allen, Syracuse, N. Y.
920814. Apparatus for dermal treatment. H. Behm, Brooklyn, and C. Rempt, Paterson, N. J.
920824. Face-bleach. E. J. Clark, Glendive, Mont.
920112. Surgical appliance and forming the same. A. M. Cordley, Glenridge, N. J.
920441. Device for preventing seasickness. G. Dittmar, Washington, D. C.
920308. Beauty pillow. E. Fitze, Houston, Tex.
920459. Drainage apparatus for surgical use. A. J. A. Hamilton, Milton, Mass.
920463. Bed and douche pan. D. Hogan, Hoboken, N. J.
920180. Sputum cup. H. J. Potter, Cambridge, Mass.
920881. Radium compound and making same. J. Reitz, Schmargendorf, near Berlin, Germany.
920683. Truss. T. J. Stevens, Boston.
920211. Bed-pan. M. E. Storrs, Henning, Minn.
920500. Examination-operating, or treatment table. E. W. Thomas, Philadelphia.
920224. Manufacturing nitric acid. F. S. Valentiner, Leipzig-Plagwitz, Germany.
920225. Douche-cabinet. S. V. Van Denburgh and J. H. Glismann, Syracuse, N. Y.
921902. Hair-tonic. T. H. Bartlett, Los Angeles.
921592. Shoe bunion-protector. C. N. Cole, Ilion, N. Y.
920922. Invalid-bed. S. Csuthy, Cleveland, Ohio.
921387. Nursing bottle. E. E. Etter, Turtle Creek, Pa.
921251. Extracting essences and tinctures from vanilla-beans. E. M. Howell, New York.
920955. Means for administering air or gas. S. Jackson, Stockton, Cal.
921130. Syringe. B. F. Lockwood, Frewsburg, N. Y.
921559. Osteopathic table. J. V. McManis, J. R. Reed and R. E. Bounds, Baird, Texas.
921563. Ankle-supporter. A. Quenzer, Brooklyn.
921468. Invalid table. J. Scheibner, Beaver Falls, Pa.
921034. Inhaler. H. Weir, Portland, Ore.
921671. Vibratory massage apparatus. H. C. Brown, Chicago.
922133. Thermoplastic compound of proteids and amins. B. B. Goldsmith, New York.
922420. Facial mask for removing and preventing wrinkles. E. Hannig, Goldfield, Nev.
922307. Atomizer. C. E. Michael, Fostoria, Ohio.
922331. Hypodermic syringe. T. M. Quarles, Washington, D. C.
921903. Ozonizer. E. W. Smith, Philadelphia.
921751. Combination tent-bag. A. L. Strawn and F. C. Spencer, Monte Vista, Colo.
921927. Hair tonic. E. M. Waterman and N. Brown, Centralia, Wash.

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Addresses

THE CONQUEST OF THE TROPICS FOR THE WHITE RACE

PRESIDENT'S ADDRESS AT THE SIXTIETH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, AT ATLANTIC CITY, JUNE 9, 1909

W. C. GORGAS, M.D.
ANCON, CANAL ZONE

It has been customary for the incoming President to urge on the Association some lines of action which he deems particularly useful and important. After careful thought, however, I have concluded that no special recommendations from me are needed at this time, and that a discussion of some phases of our sanitary work at Panama would be appropriate and perhaps generally useful and interesting.

This Association has recently endeavored to influence legislation in a direction favorable to sanitation; there is a broad field for usefulness in this line. With your permission, then, I will depart from the accepted custom, and will address you with regard to the sanitary work at Panama as it bears on malaria. I have thought that a brief description of this work might be of value to you in the future conduct of antimalarial work elsewhere.

Before entering on my subject, however, I wish to state that Dr. S. Weir Mitchell, of Philadelphia, has suggested that our Association should erect in the national capital some suitable monument in memory of the medical officers on both sides who lost their lives in the performance of their duties during the war between the states. Our Association now represents the medical profession of the whole United States. No period in the history of our profession can be selected in which greater devotion to duty was shown than was evidenced by the medical officers who served in this war, nor can any war be pointed out in which a greater number of medical officers gave up their lives in performance of their duties. I therefore recommend that the Association take steps looking to the erection in the national capital of a suitable monument in memory of the medical officers on both sides who gave up their lives in the performance of duty during the war between the states.

It has been proved that malaria is carried from person to person by the bite of the female of a particular species of mosquito, namely, the anopheles; and we hold that it is conveyed in practically no other way. Our sanitary measures are, therefore, directed toward the destruction of this species of mosquito. The female anopheles lays her eggs (about 100 at a time) on the surface of fresh water in which grass and algæ are abundant. These eggs float around until hatched by the sun's heat, and the young larvæ flee to the grass and algæ for protection from small fish and other natural enemies. After larval and pupal stages in the water lasting about eight days, they develop into full-grown mosquitoes. The adult anopheles is weak in flight and does not habitually move about much: probably one hundred yards is practically its ordinary flight. The adult avoids the wind and seeks for its protection undergrowth, grass and plants near the ground.

Our measures for mosquito destruction are, then, based on the peculiarities just described. We destroy all the breeding-places within one hundred yards of the locality we desire to protect, so that the mosquito can find no water in which to lay her eggs, or in which her larvæ can develop. At the same time we clear off the brush within the same area, so that the adult can not secure protection against the wind.

The methods used for the destruction of breeding-places must vary with the locality. Wherever we can drain at reasonable cost, we do so, usually with superficial ditches, or with subsoil tiling. Subsoil tiling makes the ideal antimalarial drainage system; it does away entirely with mosquito-breeding, and, after it is once laid in, no further expenditure is necessary in keeping the ditch open. In the tropics the growth of vegetation is so rapid that a superficial ditch has to be cleaned out every two weeks to keep the channel free from breeding-places. This is a very heavy expense, and we, therefore, find it more economical to concrete all superficial ditches. A concrete ditch should be swept out frequently, else obstructions will form many small pools.

Drainage is, *par excellence, the* means for anopheles destruction, but in many cases, by reason of the expense, it can not be resorted to; as, for instance, where a town is situated near a large swamp or lake. In such cases the larvæ can live only around the edges of the water, where they are protected by grass and algæ from small fish, or in holes made by the feet of animals in the soft soil along the margins of the water. We, therefore, keep the brush and grass cut there, and see that no animals have access. Where a town is situated near the banks of a small stream, we keep the banks and the stream itself free from grass and algæ.

When it can be done with safety, sulphate of copper is used for killing algæ. When this can not be used, we kill the larvæ with crude petroleum, or phinotas oil. Petroleum destroys the larvæ by spreading over the surface of the water and smothering them, while phinotas oil acts as a direct poison. These are the chief methods for destroying larvæ; and I look on their destruction, next to efficient drainage and the clearing away of vegetation, as the principal means for controlling malaria.

Brush-cutting we regard as second only to drainage in importance as an antimalarial measure. If brush and grass are thick about a dwelling, mosquitoes seek them

as shelter from the wind, and, if continuous stretches exist, the anopheles will wander by short flights a mile or more from a breeding-place. A cleared space of a hundred yards will, as a rule, stop her flight.

We keep the brush and grass cut within a hundred yards of the point to be protected. This is a large item of expense, as both grow very rapidly at Panama. It is a great economy to get the ground in such condition, preferably by subsoil tiling, that horse-mowers and scythes can be employed. They are now in use in most of the localities along the line of the canal where work has been going on for a year or more.

A specially good example of the results that can be attained by antimalarial work is afforded by our experience at Colon. This is a town of 15,000 inhabitants, and is built on an island just above sea-level. Where the ground has not been filled in, the houses have to be placed on piles from two to four feet in height, and are approached by wooden footways raised above the water. The heavy rains in the wet season convert this unfilled ground into a fresh-water swamp. Mosquitoes of every kind were very numerous in Colon when sanitary work was begun there.

The brush was first cut away for half a mile back of the town; this cleared area was intersected by small canals twenty feet wide and six feet deep, and the entire swamp was connected with these canals by surface ditches. This allowed the fresh water to run off, and the incoming tide caused all ditches to be filled daily with sea-water. We also looked carefully after all water-containers in the town, including cisterns and barrels.

The result has been that Colon is now almost free from mosquitoes of all kinds. This was unexpected. It was hoped by our sanitary measures to get rid of the disease-carrying mosquitoes, namely, the stegomyia and anopheles, which do not fly far; but it was not expected that the culex variety, which is strong on the wing, would be affected to any great extent.

In addition to measures directed toward the destruction of mosquitoes, the houses of all employés on the Isthmus are screened with wire gauze. Most of the houses are built with galleries, on which the doors and galleries open. These galleries are screened rather than the doors and windows themselves, thus leaving only one or two entrances into each house to be looked after with regard to being kept closed. The screening should always be supervised by some one experienced in mosquito work, as there are many points which will be overlooked by the average carpenter.

We also recommend the use of mosquito-bars, though most of us have become somewhat careless on this point, as mosquitoes are rare in houses which are carefully screened in the well-drained districts.

All employés are also urged to take three grains of quinin daily as a prophylactic measure. They are not required to do so, but the dispensers visit all the camps and barracks daily and offer quinin to such men as care to take it. On an average, our 45,000 employés consume daily about 20,000 doses of quinin.

To carry our sanitary measures into effect, the forty-five miles of country lying along the line of the canal are divided into seventeen districts. The sanitary work of each separate district is in charge of an inspector, and one chief inspector has charge over all. The chief inspector has on his staff a man familiar with the life-history of the mosquito; another who is an expert in tiling and ditching, and also a general inspector. These men keep in touch with the district inspectors and act as their instructors. The district inspector is held responsible for the results in his district. He has twenty-five or thirty men for ditching and brush-cutting; a force of carpenters for keeping screens in repair, and one or two quinin dispensers.

The chief inspector keeps in such touch with the various districts that he can intelligently apportion to each the funds at his disposal, increasing or decreasing the monthly allowance as the necessity arises. Each district inspector is notified monthly of this allowance, and is required to keep his expenditures within the prescribed limit.

The medical officer in each district reports weekly the number and locality of the employés in his district suffering from malaria. These reports are consolidated every week in the central office, giving for each district the number of employés in that district, the number of cases of malaria which occurred during the week among these employés, and what percentage the number of cases of malaria bears to the whole number of employés. A copy of this consolidated report is sent weekly to each district inspector. The work of the district inspector is judged by this report. If the malarial rate rises in a district the special inspectors from the central office go out to the district and they, with the district inspector are expected to find the cause of the rise and to correct it.

The results as to malaria have so far been very satisfactory at Panama. Table 1 shows the malarial rate among employés:

Table 1.—Malarial Rate at Panama

Year.	Force.	Cases.	Rate per 1,000	Deaths.	Rate per 1,000
1905	16,511	8,496	514	92	5.57
1906	26,705	21,938	821	199	7.45
1907	39,344	16,709	424	138	3.51
1908	43,890	12,372	282	59	1.34

It will be seen from this table that there has been a steady decrease in the malarial rate and that at present it is less than one-fourth of what it was in 1905. I see no reason why the rate should not continue to decrease indefinitely, provided proper methods are kept up.

The general health of our force is excellent. Considering the whole population under our sanitary jurisdiction, including the cities of Panama and Colon, our results are shown in Table 2.

Table 2.—Death Rate in the Population under American Sanitary Jurisdiction

Year.	Population.	Number of Deaths.	Rate per 1,000.
1905	42,699	2,793	65.41
1906	66,011	3,544	53.69
1907	102,133	3,435	33.63
1908	120,097	2,983	24.83

In the Canal Zone, which, for sanitary purposes, is under the supervision of the chief sanitary inspector, the rates for the last two years were as shown in Table 3.

Table 3.—Death Rate in Canal Zone

Year.	Population.	Number of Deaths.	Rate per 1,000.
1907	54,306	1,708	31.60
1908	67,146	1,273	18.95

While this is not small as compared with most parts of the United States, it is small for tropical regions and small as compared with many parts of Europe.

Table 4 shows the death rate from all causes (including violence), considering the whole force of employés.

Table 4.—Death Rate Among Government Employés

Year.	Force.	Number of Deaths.	Rate per 1,000
1905	16,511	427	25.86
1906	26,705	1,105	41.37
1907	39,343	1,132	28.77
1908	43,890	571	13.01

The rate for 1908 is probably not any higher than that of a similar body of men doing the same work in New York State.

The figures for Americans, taking into account all causes, including violence, are shown in Table 5.

TABLE 5.—DEATH RATE FOR AMERICANS IN PANAMA

Year.	No. of Men.	Deaths.	Rate.	No. of Women and Children.	Deaths.	Rate.
1905	3,029	..	....	....	..	....
1906	5,000	35	7.00	800	..	....
1907	4,300	42	9.76	1,337	9	6.73
1908	5,459	42	7.69	2,674	26	9.72

This is certainly a death rate no higher than for a similar population in the healthiest localities in the United States. It is much lower than that for most parts of the country.

I believe that the debility from which the white man has suffered in the past at Panama and in other tropical countries is due to malaria principally, and that if he protects himself from this infection he will remain as vigorous and strong as if he were living in a temperate climate. As a reason for this belief, I would cite the health conditions of the Americans at Panama.

We have about 8,000 white Americans there, living under the same conditions that exist at home among men doing the same character of work. They are exposed to the weather fully as much as they are at home, a large proportion of them being exposed for eight hours daily to the tropical sun and rains. Notwithstanding this, the figures quoted show that their general health remains fully as good as it was in the United States.

The only difference between ourselves and the whites formerly in Panama is that we have succeeded in protecting ourselves entirely from yellow fever and also, to a considerable extent, from malaria. Yellow fever has a great effect on the death rate of a non-immune population, but it is not a noticeable cause of debility. On the other hand, malaria is a disease which may affect the individual for years, and in a locality like Panama is responsible for a widespread condition of debility throughout the population.

It is neither difficult nor expensive for the white man going to the tropics to protect himself from malaria. It is only necessary that he should screen his house well, drain and clear off the brush within one hundred yards of his residence. These measures are much less expensive than those he must take in the temperate zones to protect himself from cold.

The advances in tropical sanitation in the last fifteen years have shown that the white man can live in the tropics and enjoy as good health as he would have if living in the temperate zone. This has been demonstrated both by our two military occupations of Cuba and by our present occupancy of Panama.

The returns for labor are many fold greater in the tropics than they are in the temperate zone. I think, therefore, that during the next few centuries the tendency will be for the white man to drift to the tropics. I dare to predict that after the lapse of a period, let us say, equal to that which now separates the year 1909 from the Norman conquest of England, localities in the tropics will be the centers of as powerful and as cultured a white civilization as any that will then exist in temperate zones.

I believe that our work in Cuba and Panama will then be looked on as the earliest demonstration that the white man could flourish in the tropics and as the starting-point of the effective settlement of these regions by the Caucasian.

THE TEACHING OF DERMATOLOGY—DERMATOLOGY AND THE PHARMACOPEIA

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON CUTANEOUS MEDICINE AND SURGERY AT THE SIXTIETH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, 1909

WILLIAM ALLEN PUSEY, A.M., M.D.
CHICAGO

There are two subjects which are now occupying a large place in the general policy of the American Medical Association. One of these is the effort at improvement of medical education. The other is the campaign in favor of the use of official remedies instead of proprietary or other remedies of uncertain or unknown composition. Both of these subjects are of direct importance to dermatology and I shall undertake, in the address which devolves on me as Chairman of this Section, to consider them in their bearings on our specialty.

THE TEACHING OF DERMATOLOGY

As you all know, the Council on Medical Education of the American Medical Association has been engaged for the last five years in an active campaign for improvement in medical education. The Council has lately undertaken the consideration of the subject of the medical curriculum and the standardizing of the medical course. With this end in view it appointed last summer a committee of One Hundred to prepare a Standard Medical Curriculum and this Committee was asked to draw up, through subcommittees, a curriculum for a four-year medical course; the plan of the Council being, not to establish a hard-and-fast curriculum to which all colleges should conform, but to furnish as nearly as possible an ideal curriculum which might serve as a standard by which schools might pattern. For the purpose of this study the Council divided the curriculum into ten sections:

1. Anatomy, including histology and embryology.
2. Physiology and physiologic chemistry.
3. Pathology and bacteriology.
4. Pharmacology, toxicology and therapeutics.
5. Medicine, including pediatrics and nervous and mental diseases.
6. Surgery; general and special.
7. Obstetrics and gynecology.
8. Diseases of the eye, ear, nose and throat.
9. Dermatology and syphilology.
10. Hygiene, medical jurisprudence and medical economics.

I was invited to act as chairman of the committee on dermatology and the following other members were appointed on the committee: Dr. Milton B. Hartzell, University of Pennsylvania; Dr. John A. Fordyce, University and Bellevue Hospital Medical College; Dr. T. C. Gilchrist, Johns Hopkins University; Dr. John T. Bowen, Harvard University; Dr. Grover W. Wende, University of Buffalo; Dr. Isadore Dyer, Tulane University; Dr. Douglass W. Montgomery, University of California; Dr. William T. Corlett, Western Reserve University; Dr. William A. Hardaway, Washington University.

Our committee was asked to make specific recommendations regarding the following points:

(a) The place of dermatology in the curriculum.
(b) Prerequisite courses, either preliminary or medical.
(c) The necessary qualifications of instructors.
(d) The best methods of teaching.
(e) The necessary equipment.
(f) The necessary clinical facilities.

(g) The proportion of didactic and laboratory or clinical teaching.

(h) The number of hours to be devoted to the subject.

Recommendations on these points were to be made with the following propositions in mind:

1. The medical course is to consist of four years of at least 900 hours each.
2. A preliminary college course shall be required including one year of physics, chemistry and biology.
3. The fundamental branches shall be taught in the first two years and the clinical branches in the last two years.

The Committee on Dermatology and Syphilis met in September last. The members of the committee found themselves in agreement on all essential matters and submitted a report which was unanimous, including the approval of the four members who were not present at the meeting. The scope of the committee as originally established had included dermatology and venereal diseases. The first point considered by the committee was this combination, and on this point it recommended that diseases of the skin and syphilis should constitute the group, and that gonorrhea and its sequelæ and accompaniments in the genitourinary tract should be included under genitourinary surgery. This recommendation, as well as all of the other recommendations of the committee were approved by the meeting of the chairmen of the ten sections held in New York Dec. 28, 1908. The further report of the committee, which was a slight elaboration of the report made to the meeting in New York, was the result of correspondence and represented an expression of opinion of nine of the ten members. This report was presented to a meeting of the chairmen of the ten subcommittees held in Chicago on April 5 last.

THE REPORT OF THE COMMITTEE

The essential part of the committee's report is as follows:

A. The course on dermatology and syphilis should preferably be placed in the senior year, but when necessary may be placed in the junior year. The feeling of the committee for placing the subject in the senior year is very strong and it believes that the course should be placed in the junior year only when the exigencies of the schedule make it practically impossible to place it in the senior year. A majority of the committee are of the opinion that to give the didactic instruction in the junior year and the practical in the senior would be better than placing the entire course in the junior year.

B. This department should have the student after he has finished the fundamental subjects and preferably after he has had a course in internal medicine.

C. At the head there should be a man who is an authority or a qualified expert. For his associates and assistants he should have men, preferably, who intend to make themselves experts in this department, or at least those who have had a reasonable amount of experience.

D. As the first condition of satisfactory teaching in this department there should be clinical instruction in small classes. In addition there should be a general clinic associated with the necessary didactic or systematic teaching. There is a very strong opinion in the committee in favor of small classes and the committee believes that most of the practical instruction should be given to the students in small groups. At the same time it is realized that dermatologic cases can be demonstrated more easily before a number of students than can most other cases and that the general clinic when properly conducted may be satisfactory.

E. The necessary equipment includes colored illustrations, projection apparatus, microscopes and the usual laboratory facilities.

F. There should be enough patients to illustrate repeatedly the commoner dermatoses.

G. Approximately two-thirds or three-fourths of the time assigned to this course should be given to practical instruction and the remaining one-third or one-fourth to didactic. The committee believes that one-fourth time for didactic instruction and three-fourths for clinical is a better ratio than one-third for didactic and two-thirds for clinical, but where the arrangement of schedules makes the division in one-fourth and three-fourths, respectively, impractical, it believes that the ratio or one-third for didactic and two-thirds for clinical teaching may be approved.

H. The number of hours assigned to this course should be ninety.

I. The scope covered by this group of subjects is definite and offers little opportunity for repetition by other departments. The following statement seems all that is necessary to avoid difficulty on this point:

The anatomy and physiology of the skin, excepting perhaps a brief review, should be left to their respective general departments.

The histopathology of diseases of the skin is so scantily considered in the other courses on pathology and is of so much importance that it should be given full consideration in this department.

In this department there should be given a systematic course on syphilis as a whole and a detailed consideration of its cutaneous manifestations. Detailed consideration of syphilis of the viscera and of other tissues than the skin does not belong to this department, but should be left to those departments where these subdivisions of the subject naturally fall.

Chancroids should be considered one of the infectious diseases of the skin and taken up by this department.

The cutaneous manifestations of the exanthemata should be covered by this department, but their general consideration should be left to medicine.

These recommendations were approved without modification by the meeting of April 5 last.

Of course these propositions cover in a very brief and dogmatic manner a broad subject on which there is room for much thought and perhaps some difference of opinion. As to the first and second propositions, I take it there would be no difference of opinion among us. Cutaneous diseases and syphilis should preferably be placed in the senior year and the student should take up dermatology after he has finished the fundamental subjects and, preferably, after he has had a course in internal medicine. In my judgment the last clause here "after he has had a course in internal medicine" expressed the important prerequisite qualifications for the study of dermatology. The student of dermatology should have an elementary knowledge of general medicine, and to take him in his junior year before he has completed such a course is an arrangement which can be justified only on the grounds of necessity; but anyone who has had to do with the arrangement of a medical curriculum knows only too well that a logical sequence in arrangement is a physical impossibility within the limitations which the length of human life places on the number of years to be devoted to the medical course.

As to the necessary qualifications of instructors, that is a proposition to which only a general answer can be given. I believe that the answer which is made by the committee is satisfactory. In my opinion, this condition for the adequate teaching of dermatology is one of the least difficult that we have to meet in the United States. With a rather extensive acquaintance among dermatologists in this country, I believe that there are few schools that can not obtain men qualified, as far as knowledge of dermatology goes, to teach all of the dermatology that can be included in an undergraduate's course. The dif-

ficulty is that most of the teachers will not, or are not so situated that they can, give the time necessary to the most satisfactory methods of teaching dermatology.

I believe teachers of dermatology, as other teachers of practical medicine, will have to come to understand that for satisfactory teaching of their subject they can not much longer confine themselves to one or two appearances a week before a class, but that they must give their time in large measure to the exacting duties that are involved in public hospital and dispensary attendance and in teaching small groups of students. This sort of work is most laborious, but it has its recompense in that it is as useful in increasing knowledge to the instructor as it is to the students.

As to the best methods of teaching dermatology, I believe that we have much food for thought. I think that our committee was unanimous in its opinion that clinical instructions in small classes is of the highest importance, and I have already intimated my belief that it is in this feature that dermatology, as now generally taught in this country, is weakest. If I can estimate the situation properly, the least valuable instructions which is given—and this applies to all departments of medicine—is that in which a teacher undertakes to instruct at one time a large body of students. In a subject like ours in which it is impossible, under the necessary limitations in time, to hope that students will be able to cover the subject thoroughly, I am inclined to believe that a short course of didactic lectures, sufficient to give an orientation of the subject, is useful and will be maintained; but I believe that it is impossible to avoid the conclusion that if we are going to give our students any practical knowledge of dermatology, no matter how elementary, it is necessary to bring them in sufficiently close contact with patients to allow them to observe accurately the clinical picture. In the time at their disposal it is impossible for them to obtain any wide knowledge of dermatology in this way, but from personal experience I can testify that it is surprising how much they learn from direct contact with a small number of patients. It follows as a corollary to this that we must have clinical material and, to obtain this, we must have facilities for taking care of it. Fortunately most of our cases are ambulatory, and a good dispensary will furnish all the material necessary. It is highly desirable, however, that this should be supplemented by a certain number of hospital beds. In this facility our department, as a rule, is weak, but not nearly so weak as it was a few years ago, and the increase in the last few years in the number of beds in our general hospitals allowed for cutaneous diseases makes me optimistic of what the future will do for us in this respect.

We asked that ninety hours as a minimum be assigned for instruction in this department and it was granted without debate. Of course, we would all like to have more. In my experience every teacher, not only in medicine but in all fields of instruction, is an Oliver Twist in this respect. We all know how depressing it is to undertake to give instructions in a large specialty like dermatology in the limited time that can be assigned to it in an undergraduate course, but the limitations of a student's time can not be disregarded, and, in my judgment, the ninety hours agreed on for dermatology and syphilis is sufficient to permit us to give an adequate course of elementary instruction.

I am sure that this subject is of great importance to dermatology in this country, and for that reason I have taken this opportunity of recalling it to your attention. I am aware that, in presenting the matter in the way in which I have, I am making a sort of report of the committee's work to this Section, where, technically, the report does not come, but I am sure that the other members of the committee, like myself, feel that in acting in this matter we are assuming a responsibility that affects American dermatology as a whole, which is, in turn, most comprehensively represented by this body.

DERMATOLOGY AND THE PHARMACOPEIA

There is probably no other class of diseases which medical practitioners in general more frequently treat with proprietary remedies, of uncertain composition, than skin diseases. There is almost certainly no other class of diseases in which patients so frequently treat themselves with ready-made commercial remedies. There is perhaps no field of medicine which has been more exploited than dermatology by the makers of proprietary remedies. And I have had it said to me (but for the sake of my specialty I have vigorously denied it) that there is no class of practitioners who are more given than dermatologists to the use of proprietary remedies of all sorts.

I believe, therefore, that we may with profit to ourselves give some thought to the subject of the propaganda for the use of official or authenticated remedies which is being carried on by the Council of Pharmacy and Chemistry of the American Medical Association.

This body was established four years ago for the purpose of investigating and determining the value of remedies, not included in the Pharmacopeia and National Formulary, which were offered to or used by the medical profession. Up to the present time its work has consisted chiefly in examining proprietary medicines. In this work it has examined more than 700 articles; it has accumulated a vast amount of information about proprietary remedies, and has made the information readily available by publishing a book called "New and Nonofficial Remedies," which is to be published annually, bringing up to January of each year information covering all remedies examined that are regarded as worthy of acceptance. Incidentally, in addition to educating the profession concerning the value or lack of value of proprietary remedies, the work of the Council has exercised an enormous influence on the manufacturers of pharmaceuticals, because by publishing its findings in THE JOURNAL of the American Medical Association the Council has given standing to accepted articles and has given most disastrous publicity to fraudulent ones. I know no braver or more self-sacrificing public service than that which this Council has been carrying out, and no movement whose results for the medical profession are more important.

Aside from the many other abuses arising from the common use of proprietary remedies to which it has called attention, the Council on Pharmacy and Chemistry has shown that proprietary remedies coming from indiscriminate sources are wholly unreliable; that the practitioner who uses an unknown remedy, solely on the statements furnished by its proprietor, is in most cases acting on information which a careful man would not ordinarily accept as the basis for any important procedure. It has not shown that all manufacturers of proprietary articles are dishonest—far from that—or all proprietary pharmaceuticals unreliable, but it has shown that many are, and that the individual practitioner is not in most instances in possession of the information concerning the origin of proprietary remedies to enable him to distinguish between the reliable and

the unreliable. Particularly has it shown that the honest proprietor accepts investigation of his remedies in order that they may have the prestige of approval and that the proprietary remedy whose owner does not submit it to investigation is one which is likely to be unreliable.

In the four years that have passed, the Council has investigated almost all of the proprietaries; this work is practically finished, the Secretary of the Council tells me, except in so far as new agents present themselves—a small fraction of the work; and information concerning all remedies which have been accepted by the Council is available up to January, 1909, in the "New and Nonofficial Remedies." In order to keep this information closely up to date, it is intended to issue three supplements to this publication each year. Not only this, but the Council stands ready to examine and report within a short time on the character of any remedy submitted to it either by a proprietor or physician which, in the judgment of the Council, is worthy of examination.

This brings us face to face with a very concrete situation: In the Pharmacopeia, the National Formulary and the work of the Council, including its willingness to investigate new remedies, we have practically all of the remedies, or, at least, mixtures of drugs, whose composition and quality are guarded by official standards or authenticated by disinterested examination. In our use of drugs should we confine ourselves to these official and authoritative remedies or are we justified, in the face of the findings of the Council, in picking and choosing our remedies where we will, regardless of their authentication by these standards?

Many illustrations within the field of cutaneous therapeutics could be given from the findings of the Council to show that when we go outside of these standards we are likely to go blindly. The range of unreliability extends from the appropriation of common agents, like boric acid, under new names, through remedies of uncertain and highly problematical properties, to articles which entirely fail to contain the ingredients claimed for them. For example, I received, and I have no doubt the profession at large recently received literature calling attention to a new non-irritating 1 per cent. solution of mercuric iodid for hypodermic use in syphilis. The Council has on request recently examined this preparation and shown that it contains less than a hundredth part of the mercuric iodid claimed for it, if it contains any at all. How much blame should the practitioner place on himself, if, with no other knowledge than that furnished by the proprietor, he has used that preparation in a syphilitic emergency, like a cerebral endarteritis? Enough, I should say, to give him pause before again using a drug of unauthentic origin.

To take another illustration from the mercury preparations, there is in use for hypodermic medication a 1 per cent. solution of mercury sozoiodolate. Mercury sozoiodolate is insoluble in water, but is soluble in solutions of chlorids, iodids and bromids. And examination in the laboratory of the Council shows that the so-called solution of sozoiodolate of mercury is honest in so far as its mercury content is concerned. But when a mercuric compound is treated with an alkali iodid, like sodium iodid, an alkali mercuric iodid is formed. And, to quote the report, "from this it would seem that when mercury sozoiodolate is dissolved in sodium iodid, the compound is decomposed, and the solution contains sodium mercuric iodid. . . . If this is the case, the question at once arises, why should not mercuric iodid be used in the place of the organic mercury compound, since the efficacy of mercuric iodid has been firmly established?" And the reporter suggests, as equivalent to the sozoiodolate solution in sodium iodid examined by him, the following very simple mixture:

℞.

	gm. or c.c.		
Mercuric iodid	0	S	gr. xiiss
Sodium iodid	3		gr. iiss
Water, q.s.a	100		fl.℥iiiss

I advise the reading of the publications of the Council on Pharmacy and Chemistry. You will not only find them interesting as contributions to our knowledge of human nature as it is exhibited in business, but, on the basis of my experience, I venture to believe that you will find them useful in refreshing your knowledge of chemistry, and, I am also almost ready to say, of materia medica and therapeutics.

Take again one of the recent aspirants for especial consideration as a local application—vasogen, for which so much has been claimed; this is, to quote the Council's report again, "essentially an ammonium soap and petrolatum—practically an ammonia liniment mixed with petrolatum." And iodovasogen, recommended as a substitute for iodin for external application, contains its iodin, not free, but chiefly in the form of ammonium iodid—quite a different sort of drug and one which certainly has not the same local action as iodin.

Vasogen serves well to illustrate another point about these proprietary remedies; and that is the danger of giving weight to testimonials to the value of these articles. As I write this I have before me one of the vasogen booklets with five pages of "bibliography," containing more than two scores of references to testimony on the value of this new ointment base. If I were an expert I would write a book on the psychology of the appeal of new remedies and of testimonials as to their efficacy.

In the light of the investigations of the Council I think that we are forced to the following conclusions: We should as nearly as possible confine our use of remedies to those authenticated by acceptance by official standards; particularly should we be careful on this point with proprietary articles. We can not without the greatest caution habitually use remedies whose composition and characters are not established, either by official recognition in the Pharmacopeia or National Formulary or in the "New and Nonofficial Remedies" of the Council—the only authoritative standards that we have. In the case of proprietary articles I believe that we would be on the scientific side if we confined ourselves absolutely to accepted articles. With drugs of definite and known composition, especially with pure chemicals and with other non-proprietary remedies of known composition or definite standards, we can safely allow ourselves much more discretion, provided we are informed as to their origin.

If we are going to use these standards as we should use them, it becomes highly important that the Pharmacopeia, the National Formulary and the "New and Nonofficial Remedies" should adequately represent the present state of our pharmaceutical knowledge, and if they do not we should take steps to correct the omissions. In the case of the "New and Nonofficial Remedies" and the work of the Council, there is, I believe, little for us to do, except to submit to them for investigation any new remedies that seem worthy of trial. It is doing its work well and is up to date. It serves to bridge the periods between the revisions of the Pharmacopeia, so that there may be no delay in furnishing

authentic pharmaceutical information. The only conditions which it requires for acceptance of articles are: that they shall not be fraudulent; shall be of known composition; shall not be advertised to the public and thus encourage self-medication, and shall not be useless or harmful. Certainly we could not require less exacting standards for the remedies we use, if we are to exercise ordinary intelligence in our prescribing. And if in connection with these very lenient requirements we remember that the Council stands ready to investigate without delay any remedy in its opinion worthy of examination, it seems clear that to conform to its standards in the use of remedies would not place any embarrassing or useless limitations on one's therapeutic resources.

In the case of the Pharmacopeia and the National Formulary there is a good deal that we may do. These official standards are revised decennially. New preparations are added and others are dropped. A critical comparison of the drugs and preparations, now officially recognized by these two standards, with our modern dermatologic materia medica, would, I believe, be of considerable value in improving for dermatologists the next editions of these works. It would show numerous preparations which might be omitted as useless and would call attention to some which should be officially recognized by these works.

The Pharmacopeial Convention will welcome such suggestions. The Convention for the Revision of the United States Pharmacopeia meets in 1910, and the present, therefore, is an opportune time for effort in this direction. In view of this approaching convention I believe that it would be highly desirable for this Section to appoint a committee to consider this subject during the next year, with a view to offering suggestions concerning mat[illegible] interest which might properly be [illegible] Pharmaceutical Convention. This would be in line with the efforts of the Committee on Pharmacopeia which has been appointed by the House of Delegates of the American Medical Association.

In closing I wish to express the high appreciation I have of the honor conferred on me in selecting me to preside over the deliberations of this body. There are few things more grateful than evidences of esteem from one's colleagues.

Experimental Alcoholic Paralysis.—Aubertin and Lhermite (*Compt. rend. Soc. de Biol.*, 1909, lxvi, 38) performed experiments to determine the localized nervous effect, if any, of chronic alcoholism. It was found that animals which were given quantities of absinthe daily developed paralysis of the posterior limbs, and after an interval of about ten months died of cachexia. Postmortem, the spinal cord showed a reduction in the number of nerve cells in the anterior horn. This reduction was fairly well confined to special groups of cells. The degenerating cells showed the appearance of chromatolysis. In the area of the atrophied nerve cells there was a great proliferation of glia cells. These changes were practically absent from all parts of the brain. The peripheral nerves were intact and showed relatively no lesions. Only a few interannular segments showed some degeneration on the medullary sheath. Since the changes in the brain are not sufficient to account for the systemic changes seen in the animal, Aubertin and Lhermite conclude that the paralysis is to be considered a result of poliomyelitis. It is further asserted that chronic alcoholism may be accompanied by paralysis associated with an extensive degeneration of nerve cells in the ventral horns of the spinal cord, and without any visible changes in the nerve fibers.

Original Articles

TWELVE YEARS OF PULMONARY TUBERCULOSIS TREATMENT IN THE WEST *

E. S. BULLOCK, M.D.
IN COLLABORATION WITH
C. T. SANDS, M.D.,
SILVER CITY, N. M.

The time has come when we should make a conscientious and scientific attempt to fix the value of climate, and especially high altitudes, in the treatment of pulmonary tuberculosis. I am not sure that it can be accomplished at this time, but that is no excuse for not trying, and one purpose of this paper is to assist, as far as possible, in the elucidation of this problem. I also desire to place before the profession, after twelve years of tuberculosis work, some practical observations along other than climatic lines, which I trust will be of service.

ALTITUDE IN TUBERCULOSIS

We must all admit that, until settled, the question of the place of climate in the treatment of pulmonary tuberculosis is one of great importance, for the physician certainly does not wish to send consumptives to distant resorts if as good results can be obtained nearer home. Twenty or twenty-five years ago there was an all-abiding faith in the efficiency of climate in tuberculosis, for the quite simple reason that nothing was done for consumptives at home, and all knew that some at least recovered when sent to distant climates. Then came the time when efforts were made in behalf of the too-long-neglected consumptive, and our beloved and respected Trudeau was among the first to show clearly that, in early stages especially, a certain proportion of these unfortunates could be returned to health and usefulness in their home climates. Then succeeded the period of almost childish enthusiasm for the results of treatment in home climates, and we are still passing through that stage, though there are portents of an early emergence.

It is curious and quite true that in many ways we are behind Europe, though as a nation not fond of admitting it; a little slow in backing a good thing (the sanatorium movement was twenty-five years late in reaching us) and still a little slow in discovering its limitations. In Germany, years ago, they found that the so-called cured patients were prone to relapse and die, and that the sanatorium must be supplemented by something else if the cured patients were to remain "cured." In this country we are just in the process of finding this out, especially those physicians who are not directly under the influence of the *esprit de corps* of the sanatorium movement. Such physicians, living in proximity to these institutions, have an excellent opportunity to observe the results, and often to care for the "cured" patients after relapse has occurred.

No man can spend years in contact with tuberculosis, and have left any great enthusiasm for the results of treatment, either climatic or otherwise, and most of us who have been long enough in the work rather lament the fate that made us specialists in the disease; for

* Owing to lack of space, this article is here abbreviated by the omission of a portion devoted to the consideration of therapeutic agents other than climate. A copy of the reprint containing the whole article will be sent by the author, or THE JOURNAL, on receipt of a stamped addressed envelope.

the unreliable. Particularly has it shown that the honest proprietor accepts investigation of his remedies in order that they may have the prestige of approval and that the proprietary remedy whose owner does not submit it to investigation is one which is likely to be unreliable.

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If we are going to use these standards as we should use them, it becomes highly important that the Pharmacopeia, the National Formulary and the "New and Nonofficial Remedies" should adequately represent the present state of our pharmaceutical knowledge, and if they do not we should take steps to correct the omissions. In the case of the "New and Nonofficial Remedies" and the work of the Council, there is, I believe, little for us to do, except to submit to them for investigation any new remedies that seem worthy of trial. It is doing its work well and is up to date. It serves to bridge the periods between the revisions of the Pharmacopeia, so that there may be no delay in furnishing

in tuberculosis: for we never realize when an apparently trivial interference from us may mean the future welfare of our patients. When institutions go beyond a certain size, as in these government sanatoria, it is practically a lost factor. One thing we can say, however, about the men who direct these institutions; they are honest men, and their statistics are honestly and carefully compiled. Much more important than the character of the medical corps in its influence on results is the character of the patients handled at these government institutions. Without a doubt no other institutions, outside those of a penal character or insane asylums, can show quite so inferior a class of patients as these two have to accept. Their patients are mostly soldiers and sailors; equally improvident, thoughtless, dissipated, ungrateful, and to a great extent syphilized; it is almost impossible to hold them under treatment long enough to do them any permanent good; for, as you may not know, the length of time they remain under treatment is entirely in their own hands. Colonel Bushnell, in command at Fort Bayard, recently told me that the results among the officers, in whom he found a high grade of cooperation, were astonishingly good. Later on we shall show statistically the exact influence of character and temperament on results. Everyone who does this work recognizes the tremendous import of these factors on the part of patients in the final result, and for this and other reasons mentioned these institutions make much the worst showing of any of our western sanatoria. Therefore, no one can accuse us of unfairness in selecting the results of their work for comparison with that done at tuberculosis sanatoria located in unfavorable climates.

Now, just what has been accomplished in the cure of tuberculosis at Fort Bayard and Fort Stanton during the past ten years? For the sake of clearness I shall confine the question to "cure and apparent cure" which mark definite results, and about which there is little chance for difference of opinion in classification. For the moment I shall leave out of account the "arrests," the "improved," the "unimproved" and "dead." Those interested in these details will find them in Tables 1 and 2. Thus, readers will be able to carry mentally the essential facts and figures, and I shall avoid confusion in the final summing up. Also, for the same reason, I have combined and averaged the results at the two institutions under discussion. In the incipient class they report 43 per cent. of cures and apparent cures; in the moderately advanced class they report 11 per cent. of cures and apparent cures, and in the far-advanced class 3.1 per cent. cures and apparent cures. In none of the approximately three thousand cases from which these figures were derived did tuberculin treatment enter as a factor. Further, nearly all patients presented tubercle bacilli in the sputum on admission; all were under treatment over thirty days, and no case was considered in which the patient was admitted arrested or cured. With one exception, to be presently discussed, these qualifications will be applied to all other cases and institutions considered in this paper. In many eastern institutions the plan has been adopted in classification of admitting patients with tubercle bacilli in the sputum credited to them if such had ever been present at any previous period, even though absent on admission. This is not the case with the western institutions discussed in this paper, where patients are credited with a sputum bacillary content at the time of admission only. I should explain, perhaps, that at Fort Bayard and Fort Stanton the results are substantially the same.

TABLE 3.—ADIRONDACK COTTAGE SANITARIUM 1907 REPORT: RESULT IN 157 PATIENTS DISCHARGED WHO REMAINED FROM 3 TO 26 MONTHS, OF WHOM 129 WERE TREATED WITH TUBERCULIN*

Condition of Patients When Admitted.			Non-tuberculous.		Apparently Cured.		Disease Arrested.		Improved.		Unimproved.		Died.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Incipient cases	61	39	..	..	23	38	27	44	9	15	2	3	0	0
Advanced cases	94	60	..	..	5	5	60	64	17	18	10	11	2	2
Far advanced cases...	1	1	..	..	0	0	0	0	1	100	0	0	0	0
Non-tuberculous	1	1	1	100	0	0	0	0	0	0	0	0	0	0
Total	157	..	1	1	28	18	87	55	27	17	12	8	2	1

* These results are practically the same as for all previous years, and many of these patients did not present bacilli on admission.

TABLE 4.—RHODE ISLAND STATE SANATORIUM FOR CONSUMPTIVES 1907 REPORT: RESULT IN 94 PATIENTS DISCHARGED WHO REMAINED FOR 3-13 MONTHS, NOT TUBERCULIN TREATED*

Condition of Patients When Admitted.			App. Cured.		Disease Arrested.		Improved.		Unimproved		Died.
	No.	%	No.	%	No.	%	No.	%	No.	%	
Incipient cases	20	21	11	55	8	40	0	0	1	5	0
Mod. advanced cases	61	64	6	9	36	59	11	18	8	13	0
Far advanced cases	13	13	0	0	5	38	4	30	4	30	0
Total	94	..	17	18	49	52	15	15	13	13	0

* These results are practically the same as for previous years and 16 of these patients did not present bacilli on admission—a class in which it is very easy to get cures anywhere.

Dr. Sands and I have elected to compare the Fort Bayard and Fort Stanton results with those of four eastern institutions in the work of which climate can not be said to enter as a factor to any appreciable extent, and which, compared with each other, like the two institutions already considered, furnish about the same results, namely, the Adirondack Cottage Sanatorium, Sharon, in Massachusetts, the Massachusetts State Sanatorium, and the Rhode Island State Sanatorium. These institutions, as we know and admit, are about as well and scientifically conducted as any that exist. They are under the direction of tuberculosis workers from choice and not from orders, who are deeply interested in tuberculosis as a vocation, and at nearly all individualization is practiced to a great and influential extent. At these eastern institutions they have a much better type of individual to deal with, too.

Thus, it may be said, we have selected favorable eastern institutions to be compared with unfavorable western ones, and still we are able to show that Fort Bayard and Fort Stanton obtain better results. In considering these eastern results, we are still dealing with approximately three thousand cases, with the qualifications before mentioned. The combined results of the work at these institutions are given in Tables 3, 4, 5 and 6.

Cures and apparent cures in incipient cases, 42 per cent.; in moderately advanced cases, 6 per cent., and in far-advanced cases, 0 per cent. The difference is not great, but it is in favor of the two government institutions in New Mexico in each and every class, and when the differences before mentioned, in management and type of cases, as well as bacilli presented in all cases on admission, are considered, the difference becomes real and quite markedly in favor of high altitude treatment. In one of the institutions considered, namely, Sharon, Mass., the proportion of patients not presenting bacilli on admission was so very large that we compiled only such of their cases as presented bacilli on admission.

I am taking it for granted that, of course, all understand that proper management can not but be vastly more important than any climate. I desire to call attention to the fact derived from the above statistics that the differences become more markedly in favor of high altitude treatment the more advanced the cases. This is as it should be, for if there is anything at all in a favorable climate we should certainly expect to see its operation in the more advanced type of the disease. The more incipient the case the more easily is the cure obtained anywhere; and, *per contra,* the more advanced the case the more necessary it becomes to avail ourselves of every favorable influence, and climate is apparently the most potent after proper management. In this connection we must not forget to emphasize the fact that at the two government institutions 60 per cent. of all cases admitted are far advanced. This is especially true of Fort Bayard, where a large majority of the patients have been subjected to the almost fatal Philippine climate. Tuberculosis in our army is part of the price we have paid for our tropical possessions, and here let me ask, if there is nothing in climate, why is it that every medical officer who has served in the Philippines will testify to the fact that not only is tuberculosis horribly common and fatal among the natives of European descent, as well as among the aborigines, but also that when one of our soldiers becomes infected the only way to save him is to get him home and to Fort Bayard as soon as possible? That is not very soon, however; it is a long way home from the Philippines, and these cases often go from incipient to far advanced between the time of diagnosis and arrival at Fort Bayard. Let us not forget, in the face of the above easily confirmed facts, that the climate of the Philippine Islands in its relation to tuberculosis bears a somewhat similar relation to the climate of our eastern states that the latter do to the climate of New Mexico.

Further to elucidate this problem, Dr. Sands and I have elected to compare the results obtained at the New Mexico Cottage Sanatorium under our management with those of the Loomis Sanatorium at Liberty, N. Y., under the management of Dr. Herbert M. King. Both are private institutions in the sense that they do not receive government or state aid. We would not have chosen the results of our own work for comparison with that of the Loomis Sanatorium if another western institution of the same type had been available. This is a matter of taste and not of science, however; for we are as sure as can be that our statistics have been carefully and conscientiously compiled. It is hardly necessary to state here that, to be available for statistical comparison, all cases must have been classified according to the Turban scheme, as modified by the National Association for the Study and Prevention of Tuberculosis. This method has been employed in all the statistics used in this paper. As we all know, the personal equation is bound to enter into any scheme of classification so far devised, and it goes without saying that the best of classifications is necessarily imperfect. In order to free our statistics from bias as far as possible, however, they were checked direct from the case records by both of us. The figures were checked as well by the Rev. Francis W. Carroll, the chaplain of our institution. I might also add that if there was any doubt about the proper classification of a case we placed it in as unfavorable a light as it would stand. We are also sure of the statistics of the Loomis Sanatorium; for every one recognizes the honesty and scientific attainments of the head of that institution. We have chosen these institutions for comparison, because, unlike those already studied, they present the most favorable results obtained under their respective climatic conditions. In both institutions tuberculin has not been employed sufficiently to make it important to take its use into consideration. In both we are dealing only with cases under treatment over thirty days, and all cases admitted arrested or cured have been eliminated.

At the Loomis, in the incipient class, they obtained 62 per cent. of apparent cures; in the moderately advanced class, 16 per cent., and in the far-advanced class, 3 per cent. At the New Mexico Cottage Sanatorium we report in the incipient class 83 per cent. of apparent cures, in the moderately advanced class 50 per cent., and in the far-advanced class 13 per cent. Thus, it can be seen, the results are again in favor of the institution with favorable or high altitude climate. This is not a slight difference as in the previous instances, but

TABLE 5.— SHARON SANATORIUM, 1907 REPORT: RESULT IN 18 PATIENTS DISCHARGED WHO HAD BACILLI ON ADMISSION AND IN A FEW OF WHOM TUBERCULIN WAS EMPLOYED*

Class.	No.	%	App. Cured. No.	App. Cured. %	Arrested. No.	Arrested. %	Improved. No.	Improved. %	Unimproved. No.	Unimproved. %	Died. No.	Died. %
Incipient	8	44	3	37	4	50	1	16	0	0	0	0
Mod. advanced	8	44	0	0	2	25	6	75	0	0	0	0
Far advanced	2	11	0	0	0	0	1	50	1	50	0	0
Total	18	..	3	16	6	33	8	44	1	5	0	0

* Results practically the same as for previous years. As a large percentage of the patients did not present bacilli, such were omitted.

TABLE 6.—MASSACHUSETTS STATE SANATORIUM 1908 REPORT: RESULTS IN 619 PATIENTS DISCHARGED, IN MANY OF WHOM BACILLI WERE NOT FOUND ON ADMISSION AND IN WHOM TUBERCULIN WAS NOT USED TO ANY EXTENT*

Class.	No.	App. Cured. No.	App. Cured. %	Arrested. No.	Arrested. %	Improved. No.	Improved. %	Unimproved. No.	Unimproved. %	Died. No.	Died. %
Incipient	230	76	33	107	46	40	17	7	3	Not mentioned.	
Mod. advanced	312	25	8	117	37	137	43	33	10	Not mentioned.	
Far advanced	77	0	0	12	15	37	48	28	36	Not mentioned.	
Total	619	101	16	236	38	214	34	68	10		

* Results correspond to those of previous years.

"he who runs may read." Again, as in the case of Fort Bayard and Fort Stanton, the more advanced the case the greater the difference in favor of high altitude treatment.

It may be of interest to know how we explain the marked discrepancy between the results of our own work and those obtained at Fort Bayard and Fort Stanton. We think we have already made that point plain in the discussion of those institutions, the character of their management and of their patients. In regard to the difference in our favor in the study of results at the Loomis and New Mexico Cottage Sanatorium, we are sure that Dr. King has no advantage over us in institutional essentials, although probably our superior in the management of tuberculous invalids; and yet his results are not as good as ours. The reason must lie in the more favorable climatic environment, especially high altitude, and such we think it is. Time, *of course, is a large factor in obtaining good results in* tuberculosis, and the fact that at the New Mexico Cottage Sanatorium the average length of treatment is 9.3 months, which is somewhat longer than most institutions report, may have a bearing on our results.

pointment. I trust that it may also help others to solve the problem: "What shall I do with my consumptive patients?"

For the sake of perfect fairness, let us exclude from our thoughts the results of the comparison between the Loomis Sanatorium and the one under our management, and think only of those remaining east and west. We can grant, I believe, that we have properly estimated the work at the government institutions and that the result is even more in their favor than it seems to be. Still the difference in favor of high altitude treatment is not sufficiently great to justify shattering every established rule of the treatment of tuberculosis for the sake of sending a consumptive to the distant high altitude climate. I will try to make just what we mean plain to all, and in order to do this it will first be necessary to show that the influence of an unfavorable temperament or financial condition is most important in the *final result, and should certainly be considered in sending* a patient far from home. If it seems certain that a properly regulated life is impossible, such a patient should not be sent away, for the natural tendency to irregularity will be more pronounced in the idle life

TABLE 7.—NEW MEXICO COTTAGE SANATORIUM: RESULTS IN 241 PATIENTS DISCHARGED, WHO REMAINED OVER ONE MONTH, EXCEPT THOSE ADMITTED CURED OR ARRESTED*

Class.	No.	%	App. Cured. No.	App. Cured. %	Arrested. No.	Arrested. %	Improved. No.	Improved. %	Unimproved. No.	Unimproved. %	Died. No.	Died. %
Incipient	47	19	39	83	8	17	0	0	0	0	0	0
Mod. advanced	48	19	24	50	16	33	4	8	3	6	1	2
Far advanced	146	60	19	13	45	30	37	25	39	26	6	4
Total	241	..	82	34	69	28	41	17	42	17	7	2.8

* Includes all cases discharged to Jan. 1, 1909. In 67 tuberculin was employed.

TABLE 8.—LOOMIS SANATORIUM AND ANNEX 1908 REPORT: RESULT IN 263 PATIENTS DISCHARGED WHO REMAINED OVER ONE MONTH, EXCEPT THOSE ADMITTED CURED OR ARRESTED*

Class.	No.	%	App. Cured. No.	App. Cured. %	Arrested. No.	Arrested. %	Improved. No.	Improved. %	Unimproved. No.	Unimproved. %	Died. No.	Died. %
Incipient	42	17	27	62	6	15	7	17	2	4	0	0
Mod. advanced	115	43	19	16	40	35	36	34	18	15	2	2.5
Far advanced	106	40	4	3	14	15	43	39	36	33	9	7.5
Total	263	..	50	11	60	22	86	32	56	21	11	4

* Forty of these patients were treated with tuberculin.

Before leaving the subject of statistical comparison it may be well to combine the results of the western institutions we have been considering and compare them with the combined results obtained at the institutions located in the east. Fort Bayard, Fort Stanton and the New Mexico Cottage Sanatorium in the incipient class report 56 per cent. of apparent cures, in the moderately advanced class 24 per cent., and in the far-advanced class 6 per cent. The Adirondack Cottage Sanatorium, the Massachusetts State Sanatorium, the Rhode Island State Sanatorium, the Sharon and the Loomis Sanatorium report 47 per cent. of apparent cures in the incipient class, 7 per cent. in the moderately advanced class, and 0.6 per cent. in the far-advanced class. So, finally, there seems nothing to do but gracefully to admit that high altitude treatment furnishes better results than can be obtained in unfavorable or low altitude climates.

Medical questions are notably knotty and difficult of solution. We so often work in the dark as regards important factors that there comes a time when doubt of nearly everything assails us. Many times I have had moods of black pessimism in regard to the rôle of climate in tuberculosis, but this study of statistics, undertaken primarily to convince myself and Dr. Sands, has *helped me to feel satisfied with my lot* and to know certainly that my task is not useless. To return to my little oasis in the desert is a comfort and not a disap-

such a patient is often compelled to lead. And if such a one is sent to an institution it will simply make things uncomfortable for himself and every one else. A patient of this type is likely to become a peripatetic consumptive, roaming the west in search of the health that is never found. If the financial condition is not such as to permit a patient to go away in peace of mind for at least a year, and have during that period the best of care and treatment, then such should be kept at home. Fifty per cent. of our cases are classed as unfavorable as to temperament or financial condition, and this operates against them as follows: In the incipient class the percentage in favor of the properly equipped individual as to money and temperament is 17; in the moderately advanced class 18 per cent., and in the far-advanced class 15 per cent. These figures are much too conclusive to be overlooked when deciding on the disposition of a tuberculous invalid. Practically, does it seem reasonable that any one can do well when constantly worried about money and other important things? I am certain that our results would not be nearly as good if I had not by persistent begging been able to keep many patients under treatment who otherwise would have been forced to leave the institution. Thus, by sending away persons not properly equipped, an enormous burden is thrown on our institutions for tuberculosis in the west, a burden that detracts largely from the pleasure and comfort that otherwise might be derived from the work. This

applies to our western communities as well, and in Los Angeles the evil of indigent consumptives has grown to such proportions as to compel the citizens to take united action to insure their future protection.

I have admitted that climatic treatment offers no wonderful inducements for sending consumptives far from home. To be exact, the chances of the incipient are increased 9 per cent. by proper treatment in a high altitude climate, 17 per cent. in the moderately advanced class, and 6 per cent. in the far-advanced class. I have also defined two classes that positively should not be sent away. I have also pointed out that a good climatic environment does not justify breaking all the established rules of the treatment of tuberculosis. The sanatorium régime, with its hard and fast rules and constant medical supervision, is easily the most important factor in treatment. Therefore, it is much better to keep a patient in an unfavorable climate and in a good sanatorium than in the most perfect climate in the world outside a sanatorium, and, except for an occasionally and practically useless call on a physician, do just about as he pleases the rest of the time. In illustration of this point permit me to observe that at a meeting of our local county society, the physicians present, the majority of those practicing in Silver City, admitted that outside the institutions located in Grant County there had been only seven or eight cures in the memory of the oldest medical inhabitant. It is only fair to add, however, that the climate does help many people in the far-advanced stages to keep on living.

I do not mean to maintain that every consumptive outside of an institution is necessarily mismanaged; for here and there will be found a doctor who knows the ropes, and a patient with sense enough to cling to them, but such doctors and such patients are quite exceptional, we are sure. To sum up in a few words, I most emphatically maintain that no consumptive should ever be sent away if it is not certain that he will have as good care and management in the distant climate as he could obtain near home. It was genuine pity for the homeless and often itinerant consumptive that originally actuated me in taking up the work out west.

It is, of course, important to remember that, as I have shown, the more advanced the case the more essential it becomes to prescribe climatic change.

A word may be useful regarding the cost of caring for patients properly in an institution in the west. I am referring, of course, to private patients who invariably insist on certain things which might be eliminated without damage to the scientific régime in a truly charitable institution. Our institution is in no sense commercial, but is organized to pay for maintenance, the plant itself being an endowment. We have found it impossible to conduct our institution for much less than you can properly care for patients in private rooms in your hospitals here. Without our partial endowment the rate we are forced to charge would, of necessity, be higher than it is. A properly conducted institution for the tuberculous implies a full corps of doctors, nurses and all the usual hospital employés, and has more than a hospital plant as well, for, to get the best results, we must provide separate cottages for patients. It seems necessary to mention this matter, as so many of our eastern friends have asked us why we can not charge less, seeming to forget that it is unreasonable to ask us to do in a country of high prices what they can not and would not do themselves in a country of much lower prices. From its organization, three and one-half years ago, the New Mexico Cottage Sanatorium has supplied 2,246 months of treatment at a total cost to the institution, without profit, of $202,140. As the average length of stay is 9.3 months, the average cost per patient is $838, and, of course, to this sum must be added the cost of transportation. Thus, the total cost for nine months' treatment is nearly $1,000, and it may readily be seen how impossible it is, at present at least, to bring sanatorium treatment in the west, for private patients, within reach of more than comparatively few of the vast army of human beings afflicted with tuberculosis. It seems to us very practical, indeed, to mention these financial details, for so many, about 50 per cent., of the people sent west are utterly unable to cope financially with the conditions found on their arrival. To live outside an institution and to have all the essentials of a proper environment, including medical attention, is even more expensive, and often disastrous, for to save money, patients, when left to themselves, will eliminate things of vital importance to their welfare.

I might mention that 60 per cent. of all our cases have been far advanced, a class which in the east is practically barred from institutional treatment. It is certainly a question if the time and money spent on these far-advanced cases is justified in the light of actual results obtained under the most favorable conditions, namely, 13 per cent. of apparent cures and 30 per cent. of arrests, leaving at least 30 per cent. to die within a comparatively short time, and probably most of the remainder within ten years. This is an academic and not a practical question, for when put to it few will submit to having a money value placed on their lives. It resolves itself into this: Cure in tuberculosis is probable inversely as the square of the lung tissue involved; the more advanced the case, the greater the necessity of high altitude treatment, the longer the time required to effect a result, and consequently the more money needed by the patient, for, where an incipient

TABLE 9.—NEW MEXICO COTTAGE SANATORIUM: CASES WITH FAVORABLE TEMPERAMENT AND FINANCIAL CONDITIONS

Class.	App. Cured. No.	App. Cured. %	Arrested. No.	Arrested. %	Improved. No.	Improved. %	Unimproved. No.	Unimproved. %	Died. No.	Died. %
Incipient	25	89	3	10	0	0	0	0	0	0
Mod. advanced	16	57	7	25	1	3	2	7	2	7
Far advanced	14	21	22	33	6	9	19	29	4	6

Total 121, or 50 per cent.

TABLE 10.—NEW MEXICO COTTAGE SANATORIUM: CASES IN WHICH EITHER TEMPERAMENT OR FINANCES WERE UNFAVORABLE

Class.	App. Cured. No.	App. Cured. %	Arrested. No.	Arrested. %	Improved No.	Improved %	Unimproved. No.	Unimproved. %	Died. No.	Died. %
Incipient	13	72	5	27	0	0	0	0	0	0
Mod. advanced	9	39	9	39	3	13	2	8	0	0
Far advanced	5	6	23	29	31	39	19	24	1	1

Total 120, or 50 per cent.

may recover in from five to six months, a far-advanced patient will require a year or more to make even a relative recovery. It may be granted, I think, that we are not devoting so much attention to this matter as an inducement for the practitioner to keep tuberculous people at home until they have become far advanced, although we are free to admit that the greatest pleasure we have is to observe the slow return to health of some at least of these so-called hopeless patients. From our point of view they are quite the most desirable class of patients; for they see and know the necessities of the situation and are more than willing to devote the time to getting well. It is rarely necessary to do battle with them to keep them long enough under treatment to obtain a substantial result, as we often must with the incipients.

So far, in submitting proofs of the value of high altitude climates in tuberculosis, I have confined my argument to statistics. Of course, I can not but recognize, however, that the final decision will rest on statistical evidence carefully compiled and scientifically interpreted. Let us, however, for the moment, turn our attention to a collection of perfectly well-established facts, hardly less important to consider than those already studied. Time will not permit more than a glance at the different factors of a good climate for tuberculosis, and the rôle each fills, and some, of necessity, we shall be compelled to overlook entirely. It is curious how a work of genuine merit is sometimes completely forgotten, and how a succeeding generation must rediscover it and learn it all over again. This is true of the epoch-making paper of Sir Herman Weber, read in London in 1869, which resulted in the use of the high altitudes of the Alps in the treatment of tuberculosis from that day to this. Sir Herman Weber had his predecessors, of course; among the most notable were Lowhard, Archibald Smith and Jourdannet, who, some of them, many years before, had advocated high altitude in tuberculosis. Weber stated that altitude from 5,000 feet up was the one important factor in climatic treatment, and if that were provided we need not argue over other things, humidity, rainfall, etc., which "may modify but do not hinder the effects of altitude."

Williams of London, than whom there is no greater living English authority in the treatment of pulmonary tuberculosis and who has employed high altitude in his practice for the past forty years, states:

The characteristic effects of mountain climate are:

1. Diminished barometric pressure and consequent rarefaction of the atmosphere.

2. Diathermancy of the air, or the increased facility by which the sun's rays are transmitted. This, as the late Dr Denison of Denver was the first to show, causes an increase in the difference between the sun and shade temperature of 1 degree F. for every rise of 235 feet.

3. Asepticity of freedom from pathogenic germs, as proved by the researches of Pasteur and others. The effect of mountain air on the organs and functions of healthy and sick persons has been ascertained by repeated and careful observations to be as follows: The skin is tanned by the solar rays, and, according to Dr. Bowles, principally by the ultraviolet rays in the attenuated atmosphere. The circulation is at first quickened, the heart's impulse becomes more powerful, but the pulse rate at the end of six or eight weeks falls to normal, or even below normal. The respiration is at first quickened, but after a similar interval it gradually slows and is reduced to normal, or below normal. The breathing becomes deeper, the inspiration longer and the expiration more complete, and thus is explained the slowing of the respiration. At first there is reduction of the blood pressure, and in the amount of urea excreted by the kidneys, but more carbonic acid and water are eliminated by the lungs. When acclimatization is complete, the urea appears in full quantity in the urine, and the blood pressure again increases.

Accompanying and exactly coinciding with the reduction in the pulse and respiration the thorax expands in several directions, causing an increase in circumference at various levels of from one to three inches or more, also an augmentation of the spirometric record and increased mobility of the chest walls. The thoracic expansion is caused by the greater physiologic activity and development of the lungs due to rarefaction of the air. This is recognized by the measurements alluded to above and by the physical signs; for the respiratory sounds are heard over a larger area in the thorax than is usual, and thoracic expansion is further proved by the wearer's clothing becoming too tight around the chest. More oxygen is consumed by the blood and more carbonic acid gas is given off. These changes in the thorax and its contents in visitors to the mountains are exemplified more fully in the mountain races; for the Indian of the Andes, the hill tribes of the Himalayas, the guide and chamois hunter of the Alps have all enormous chests and are characterized by great respiratory power.

TABLE 11.—RESULTS OF DIFFERENT CLIMATES COMPARED AFTER WILLIAMS

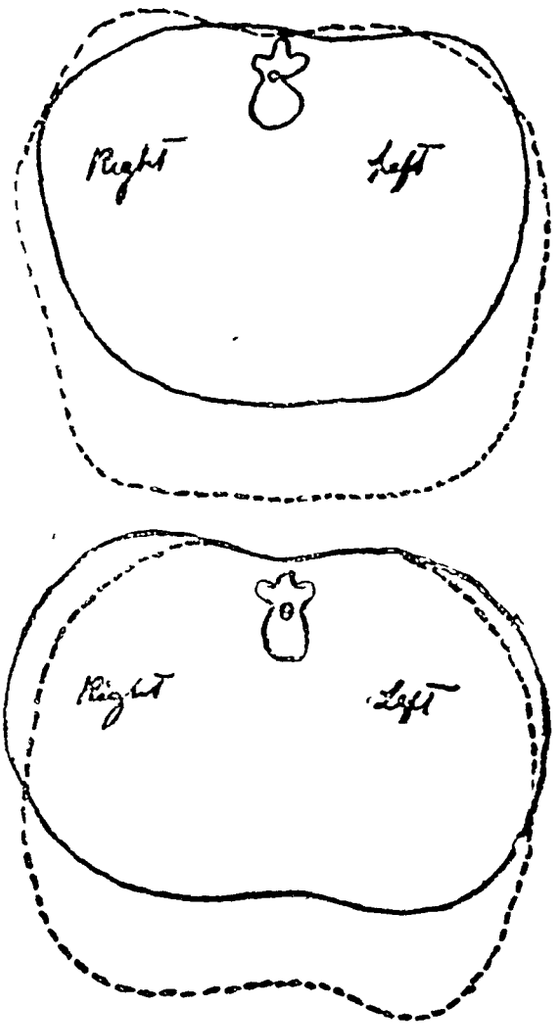
					Results.							
					General.				Local.			
	Number of Patients.	Average Residence, Months.	First Stage.	Second and Third Stages.	Bilateral Affection.	Improved.	Stationary.	Worse.	Arrest.	Improved, Including Arrest.	Stationary.	Worse.
		%	%	%	%	%	%	%	%	%	%	%
High altitudes	247	12	65	35	37	83	2	14	42	75	5	9
Sea voyages	65	[illegible]	65	37	37	77	..	21	7	53	10	33
Riviera	210	9	59	41	36	65	10	24	5	36	17	45
British climates	292	9	58	42	42	63	8	28	2	28	20	51

Dr. Williams states, as well, that of all his consumptive patients those treated in high altitudes yielded the most favorable results, and, what is more important, the fewest relapses. He gives the results in about 850 cases as follows: treated in high altitudes, 83 per cent. improved, as against 63 per cent. in England, which, as will be remembered, represents about the difference between the Loomis Sanatorium and our own work. Dr. Williams further states:

In no country can the high altitude treatment be more effectively carried out than in the United States, where the tract of high-lying land is of vast extent and where altitudes of from 5,000 to 10,000 feet are available and being situated in temperate latitude, present a great choice of climate.

All these facts in regard to the effect of high altitudes in consumption have been confirmed over and over again; there is hardly anything in medicine better sub-

stantiated. They have a right to take their places among the established contributions to our art and science. Let us not be deafened by the loud blasts of the trumpet of anticlimate, which has been so strenuously blown the past few years, and try not to forget what has been done by scholarly workers in Europe to prove the place of climate in tuberculosis. In imagination let us turn our eyes to the Alps, and there in the snow and ice and among the tall pines see the multitude of sanatoria for consumptives which dot the mountain sides and realize that Europe believes in altitude and climate in tuberculosis.



Diagrams, after Theodore Williams, showing increased chest girth after sojourn in high altitudes. The solid lines show girth before, and dotted lines girth after stay in high altitude.

I should not leave this subject of altitude until something has been said of the results of our blood-pressure studies. I can not give all the details of this investigation, but can briefly indicate the results. It is positively known that coincident with improvement in tuberculosis there is a rise of blood pressure, and this phenomenon occurs, of course, in any altitude. Dr. Thayer of Baltimore recorded the blood pressure in a large number of consumptives and found it to average 100 mm. of mercury, showing conclusively the influence of tuberculosis in lowering blood pressure. Granting that Dr. Thayer's figures are correct, it becomes clear that continued residence in a high altitude tends to raise the blood pressure, after the primary fall has been recovered from. Among 350 of our patients, the average blood pressure in all classes is 130 mm. of mercury. Thus, we may have stumbled, for aught we know, on one at least of the specific reasons why high altitudes are beneficial in tuberculosis. Continued residence in a high altitude causes complicated changes in the blood itself, as well also as an increase in hemoglobin, but further studies are required to elucidate them.

At this point I can not resist the temptation of pointing out the scientific advantages which would accrue from the establishment of a special laboratory at a selected spot in the Rocky Mountains for the study of effects of high altitudes on human beings, both sick and well.

PHAGOCYTOSIS IN RELATION TO ARNETH'S CLASSIFICATION OF NEUTROPHILES *

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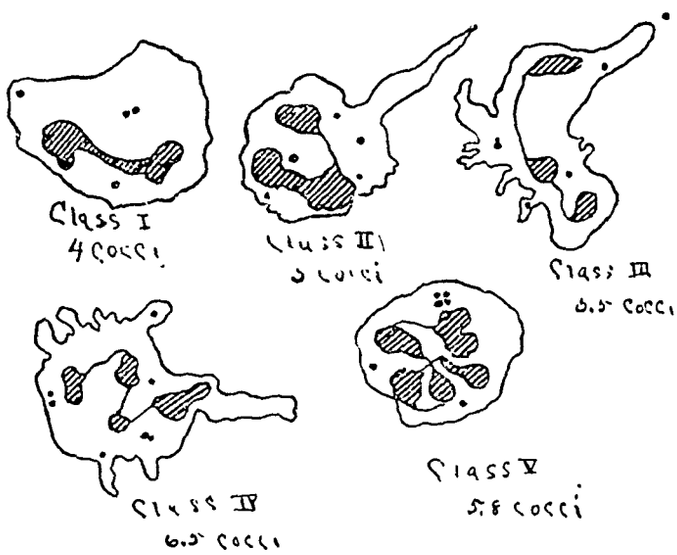
If the experience of perhaps most workers who have written on the subject is to be accepted, the opsonic index as a means of diagnosis and especially as a therapeutic guide is far from satisfactory.

Disregarding the possibility that much of this adverse criticism is due to incomplete mastery of detail, there still seems good theoretical ground for not accepting some of Wright's earlier views on the question. In disregarding the leucocyte entirely he seems to have done wrong, since various observers have called attention to the variability of phagocytic activity by leucocytes obtained from various sources—in certain stages of infection and in artificially induced leucocytosis. But as far as I can determine no one has offered a satisfactory explanation for this varied activity.



Neutrophiles, drawn from the microscopic field. Figure below each neutrophile expresses the average number of staphylococci ingested by the corresponding cell in a series of 9 bloods, aggregating 1,200 neutrophiles.

Believing that Arneth's classification[1] of neutrophiles in conjunction with the phagocytic power of the neutrophile might throw light on this question, I made the following study:

Phagocytic tests were made with the blood of various patients presenting considerable variation in the number of cells belonging to the different classes of Arneth, and the average number of organisms ingested by the cells of each class was observed, in order to determine if constant relative phagocytic power existed for each class of cells.

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* From the Laboratory of the Pottenger Sanatorium

1. Arneth: Die neutrophilen weissen Blutkörperchen bei Infectionskrankheiten, 1904; Die Lungen Schwindsucht, 1905.

The method of Dodds[2] was employed for simplicity, and the film preparations were stained with Hastings' modification of Nocht's stain. A serious obstacle was encountered, however, in that it was very difficult to assign all cells to their proper classes because of occasional overlapping of parts of the nuclei. While these doubtful cells were not many in number and did not materially alter the class percentage, yet taken in connection with their respective phagocytic powers, it became imperative to obtain a better technic.

The technic of Wiedenreich[3] offers two great advantages over dry blood preparations. First, the cells are fixed while in ameboid motion; second, the parts of the nucleus are distanced from each other so that overlapping is a rare occurrence. This beautiful technic seems to be a most important advance for the accurate study of the morphology of the leucocyte. The advantage is shown in the fact that, while I found 12 per cent. of cells of doubtful classification in a total of 700 counted in the dry preparations, by employing Wiedenreich's technic the doubtful cells fell to 1.1 per cent. of 1,200 counted. Thus the error is negligible so far as the proper classification of cells is concerned.

The figures in the illustration drawn from the microscopic field will illustrate the beauty of the technic.

The individuals of this series of nine counts varied somewhat. In only one was phagocytosis greater in Class I than in Class II, and this was evidently the result of a clump of organisms which increased unduly the result. In four of the series there was a gradual rise in phagocytic power from Class I to Class IV, inclusive, and a decrease in Class V. In another four the same relation obtained with the exception that Class III was slightly lower than Class II.

I have made a similar differential phagocytic enumeration in the pus from a boil, counting 400 cells. In this the cells of Class I are only one-half as phagocytic as Classes II and III.

Now, in view of the fact that the blood picture from different individuals varies greatly, especially in disease, in the proportion of its several classes according to Arneth, it seems important that the true opsonic index, or, better, the phagocytic power of the blood, be obtained by the use of the patient's own corpuscles as well as serum.

To illustrate, I present two divergent types of blood from my records, all tuberculous patients:

TWO DIVERGENT TYPES OF BLOOD—ARNETH'S CLASSIFICATION

	Class I.	Class II.	Class III.	Class IV.	Class V.	W.B.C.
Mr. B.	33	40	20	5	2	13,300
Mr. G.	63	25	12			8,400
Mrs. J.	47	44	8	1		5,200
Normal	5	41	35	17	2	6,000

The first two are of the type anisohyperleucocytosis, while the third is of the anisonormoleucocytosis type. Now, in the second case above, 63 per cent. of the cells are of weaker phagocytic power, and one would surely obtain quite different results if with the same serum should be put up opsonic mixtures with these cells and those from a normal person.

While I am aware that this work must be continued with great care before any definite rules may be established, yet I feel justified in offering the following conclusions:

1. There is more or less definite phagocytic value for each variety of neutrophile (Arneth's classification) acting on staphylococci.

2. This fact will surely throw light on the varying phagocytic values of neutrophiles obtained from various sources.

3. It may aid in the solution of the question of leucocytosis induced for therapeutic purposes.

4. It is evidence that Wright's early assumption, namely, that the leucocyte is a comparatively indifferent factor, is wrong.

2. Dodds: Modification of Leishman's Method of Estimating the Opsonic Index, Brit. Med. Jour., Oct. 12, 1907.
3. Wiedenreich: Arch. f. micr. Anat. u. Entwicklungsgesch., May 30, 1908, p. 212.

A STUDY OF MALNUTRITION IN THE SCHOOL CHILD*

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This study was undertaken with a view to determine as far as possible the etiologic factors, which to a large extent are at the bottom of this very prevalent condition found in our city children, especially of the school age.

CAUSES OF MALNUTRITION

The subjects were all taken from the laboring and tenement-house classes and the parents were mostly foreigners. Each little patient, after having a careful physical examination, was weighed, a full history obtained from the mother through a trained nurse who spoke her language, and anything such as tuberculosis, syphilis or other diseases that would have a bearing on the condition of the child carefully noted. Then the following questions were asked the mother: "What does the child get for breakfast, for dinner, for supper? How many rooms have you? How many in the family, including boarders? Do you keep your windows open at night to allow the circulation of fresh air, and air the house in the day-time? When does the child go to bed? Does the child eat between meals—candy, etc.? How often does the child get a tub bath? Is the child in a grade with children of its own age at school?"

The answers to all these questions were tabulated opposite the name of each child with its history, weight and age. In 210 malnutrition cases in my own clinic on the lower East Side, it was found that meals were given as shown in Table 1.

TABLE 1.—DIET IN 210 MALNUTRITION CASES

Breakfast.		Dinner.		Supper.	
Tea or coffee and bread	165	Tea or coffee and bread	28	Meat-soup	136
Cocoa or milk and bread	30	Meat-soup and potatoes	116	Coffee or tea and bread or cake	45
Milk or tea and egg	10	Coffee, egg and bread	29	Bread and Milk	15
Coffee and oatmeal	4	Bread and onion	2	Bread, milk and soup	4
Nothing	1	Fish or egg or bread	6	Bread, milk and fish	2
		Rice and milk	2	Milk and egg	3
		Egg and milk	5	Coffee and egg	4
		Cocoa and bread	4	Nothing	1
		Cocoa-egg	1		
		Bread and milk	10		
		Egg and bread	6		
		Nothing	1		

The table shows that 175 drank tea or coffee at least once a day and many (25 per cent.) had tea or coffee two or three times a day. We find cereals given only six times. In other words, 83 per cent. of these children practically depended for their diet on tea or coffee and bread.

* Read in the Section on Stomatology of the American Medical Association, at the Sixtieth Annual Session, at Atlantic City, June, 1909.

Of the 210 families examined, 3 had 1 room, 34 had 2 rooms, 114 had 3 rooms, 52 had 4 rooms, 3 had 5 rooms, 1 had 6 rooms. This makes the average number of rooms per family 3. The size of these three rooms averages 3,600 cubic feet. Seven families had 3 members each, 34 had 4 in the family, 49 had 5 in the family, 48 had 6 in the family, 22 had 7 in the family, 15 had 8 in the family, 12 had 9 in the family, 10 had 10 in the family, 4 had 11 in the family. The average size of the family was 6. This allows only 600 cubic feet of air space for each person.

Sixty-two per cent. kept their windows closed. Fifty per cent. of the children ate between meals—candy, etc.; 13 per cent. were in a grade at school with younger children. Of these children, 21 per cent. went to bed at 8 o'clock, 40 per cent. went to bed at 9, 24 per cent. went to bed at 10, and 12 per cent. went to bed at 11. These children were all under ten years of age and should have been in bed at 7 o'clock.

We found that 18.5 per cent. had a bath once a week; 22 per cent. had a bath once in two weeks; 11 per cent. had a bath once in three weeks, 18.5 per cent. had a bath once in four weeks, 22 per cent. had a bath once in three months, 4 per cent. had a bath once in two months, and 4 per cent. had a bath once a year.

We found that all these malnutrition patients were decidedly under weight for their age compared with the weight of normal children, the discrepancy varying from 4 to 16 pounds. Many children were found to be of the same weight as normal children who were from one to three years younger and in extreme cases there was even a difference of four years, and the cases were not picked but all malnutrition cases just as they came.

The ages of these children were from three to ten years but the great majority (175) were from six to ten years (or the school age). One thousand other children in the primary schools, in the Jewish quarter on the East Side were examined by me. Of these 40 per cent. were found to be poorly nourished, under weight and more or less anemic. These were, therefore, malnutrition cases. These children were from six to twelve years of age. Eighty-six per cent. had dental caries, 90 per cent. had adenoids, 40 per cent, had hypertrophied tonsils, 6.5 per cent. had defective hearing, 10 per cent. had defective vision, 4.5 per cent. had tuberculous lymph nodes of the neck, 1 per cent. had pulmonary disease, 0.4 per cent. had cardiac disease, 0.8 per cent. had chorea.

It will be seen that a very high percentage of these children had dental caries, and I believe we should put down this as one of the causative factors in malnutrition, since bad teeth mean improperly masticated food and disordered digestion, and painful teeth cause anorexia.

Whether the very high percentage (90 per cent.) of adenoids is due to the climate of New York City or the poor ventilation is a subject open to discussion and will require further investigation; but probably both causes are in a measure responsible.

Of the 210 patients examined in my own clinic 75 per cent. had enlarged cervical glands. One hundred and one of these children were tested for tuberculosis either with the Moro ointment test or the von Pirquet cutaneous test and some with both and 55 (55 per cent.) gave a positive reaction. Thirteen per cent. gave a family history of tuberculosis.

Practically all these children had defects and complications other than the malnutrition, the variety and percentage of which was very much the same as those found in the children examined in the schools. A detailed list of these defects would necessitate too long a paper.

It was observed that many of these children were in such a condition that they had no desire for good nourishing food and, indeed, could not retain it, because their stomachs had become so accustomed to the tea and bread or coffee and bread diet. The mother would say when told what food the child required, "But, doctor, she will not take it." Von Noorden accounts for this condition by stating that the activity of the digestive organs during starvation is lowered and the secretion of saliva, gastric juice, bile, and intestinal secretions diminish. In many of these cases the stomach had to be gradually educated to a stronger diet and the children were treated just as one would treat convalescents from disease.

It has been found that tea diminishes all the secretions of the alimentary tract and thus we see another reason for this inability on the part of the stomach to take food. Thus many causes play their part in bringing about malnutrition in the child, but two causes stand out prominently and common to all, namely, insufficient and improper nourishment, and bad housing. As Kerley has aptly put it, the child does not get what it has a right to demand.

Poverty, I am forced to admit, is an important factor in the causation of this chronic starvation or ill-nourished condition, but ignorance on the part of parents plays even a more important part—ignorance as to food-values, ignorance as to cooking, ignorance as to how to live, ignorance as to cleanliness, fresh air and sunlight. Although very few mothers had a proper idea of what foods were nourishing, or how to cook foods properly to make them nourishing, all were willing and glad to be instructed, and it seems to me that just here lies in a measure the partial solution of this problem. Since the mother who loves her child is by far the best instrument the state can employ to see that that child is properly nourished, fed and cared for, and in providing for its real education, the mothers are better than teachers, school managers, medical inspectors or attendance officers. It is economy to educate and improve the mothers and in that way guide the natural love to be an effective help in bringing up children to be healthy and useful citizens.

Visitation of the homes of underfed children and instruction of mothers would wonderfully reduce the number of these underfed children. The employment of the mother is responsible for many neglected children; given a father out of work or sick, and the mother must take in sewing or go out to work, with too often the result of underfeeding of not only the children, but herself as well.

A few statistics quoted from other writers may give a more adequate idea of the vast numbers of children involved and the importance of the subject.

Robert Hunter says: "Few of us sufficiently realize the powerful effect on life of adequate nutritious food. Few of us ever think of how much it is responsible for our physical and mental advancement or what a force it has been in forwarding our civilized life." Again, Hunter says that 60,000 to 70,000 children in New York City, "arrive at school hungry and unfitted to do well the work required of them. And at least 3,300,000 under fourteen years of age are underfed in the United States."

My own figures show an apparently greater number of underfed or more correctly speaking ill-nourished children in New York City, and fewer in the United States.

The latest available figures show that there are 241,-917 school children in the elementary schools (primary and kindergarten) of Manhattan, and 555,525 elementary school children in Greater New York City. My statistics show that of this number there are approximately 96,778 in Manhattan and 222,210 in Greater New York City that are ill-nourished.

The census of 1900 shows that the urban population is increasing much more rapidly than the rural population of the United States. The increase in the total population in the United States from 1890 to 1900 was 20.8 per cent., while the increase in the urban population during that time was 36.8 per cent. This shows that we are becoming more and more a people dwelling in cities. We find the urban population in the United States in 1900 was 28,411,698.

Of the total population, 19.82 per cent. of pupils were enrolled, (or we might say now practically 20 per cent.). This would give us 3,682,239 school children in the cities in the United States. It is in the cities where we see the overcrowding and bad feeding mostly, and therefore most of the ill-nourished school children.

My statistics would show, then, that there are approximately 1,472,895 ill-nourished school children in the cities of the United States.

In the report of the Interdepartmental Committee on Physical Deterioration, Dr. Echholz, a British school inspector, states that on examining children in the Johanna Street Board school, in Lambeth, a type of school in a very bad district, 90 per cent. are found unable by reason of their physical condition, to attend to their work in a proper way, while 33 per cent. during six months of the year, require feeding. He estimates the number of underfed children in London as approximately 122,000.

Dr. Mackenzie considers more than one-third of the children in Edinburgh ill-nourished. These percentages from the cities in Great Britain correspond closely with my own in the cities of the United States.

John Spargo, in his excellent work, "The Bitter Cry of the Children" says that a crude investigation in the public schools of New York found out of 12,800 children, 2,950, or more than 23 per cent., wholly breakfastless or provided with miserably poor breakfasts.

A more careful and systematic investigation was made by Dr. H. M. Lechstrecker, of the New York State Board of Charities. He examined 10,707 children in industrial schools of New York. Of these, 998 had coffee or coffee and bread only for breakfast; 439 or 4.10 per cent. had no breakfast; 998 or 9.32 per cent. were anemic, owing to lack of nourishment. Only 1,855 or 17.32 per cent. started the day with an adequate meal. These astounding figures should indeed thrill every true American with the importance of the subject and the duty each of us owes to humanity for the relief of this curse which is sapping the life of our coming generation and threatens the health and strength of our nation. It is our duty to give this vital and far-reaching question our most careful thought and study, and to try to evolve means whereby this state of affairs among our poor can be properly, scientifically and adequately dealt with, as it involves the lives of our future American citizens.

Is it not absurd to force these little half-starved things to attend school as our compulsory school laws do force them? Is it fair to suppose that a hungry child, wasted and weakened, with the attendant conditions of lassitude, irritability, nervousness and anemia, the result of prolonged underfeeding and bad housing, can study in school for five hours with scarcely any intermission?

Although great advancement in the science of education has been made in the past twenty-five years, the physical condition and development of the child has been grossly neglected. When the child has a poorly developed and weakened body little can be expected from it in the way of mental development or advancement. The duty of the nation is, first of all, to care for the proper feeding and housing of its children and so to insure their proper growth, development and health.

A. F. Tredgold informs us in his book on "Mental Deficiency" that insufficiency and improper feeding, absence of fresh air or warmth, and the general neglect which unfortunately prevails during the early life of many of the children in our densely populated industrial centers, produces a retardation of the mental growth which is not permanent and is not therefore dementia. "Under more congenial surroundings the brain rapidly recovers and the child soon regains the normal standard."

Thus, no doubt the so-called stupidity or backwardness of many children in the public schools is simply the result of neglect and underfeeding.

Dr. Collie, Medical Inspector for the London School Boards, says that mental disability is not only preventable but in many cases curable. The brains of these underfed children are starved and fail to react to the ordinary methods of teaching.

Von Noorden, from experiments on man and animals has deduced the following law: "The expenditure of energy during starvation diminishes in the same proportions as the weight of the body, apart from extreme degrees of emaciation or adiposity and with moderate bodily exercise by day and normal hours of sleep by night." The operation of this law of Von Noorden, then, would account for the lassitude, nervousness and loss of energy seen in these children.

Atwater's experiments show that a larger amount of protein is required with physical labor than with mental labor and more energy utilized; therefore, the importance and necessity of a high proteid diet in the active child—and every healthy child is active. It has been shown by Atwater that a man on a vacation requires 79 grams of protein per day for a diet of maintenance which produces 3,125 calories of energy. It is known that three quarters of the amount of proteid necessary for an adult is necessary for a child. A growing child would therefore require about 59 grams per day, which would produce about 2,330 calories of energy. This proteid should be given largely in the form of a vegetable proteid. Children, by reason of their rapid digestion, and great respiratory activity should have about as much carbohydrate as adults.

Atwater also states that a child under two years requires 0.3 the amount of food of a man doing ordinary work; from six to nine years 0.5; from ten to thirteen years 0.6; a girl from fourteen to sixteen years 0.7; a boy from fourteen to sixteen years 0.8.

The growing child, requiring a highly nutritious diet, requires also a great deal of fresh air to oxygenate

the food properly. This requisite is impossible, as we shall presently see, with the housing conditions as they are. The conditions of overcrowding in New York, (and in fact in all our great American cities) has become a most menacing one.

The census of 1900 showed that more than 2,000,000 in Greater New York lived in tenement houses. These tenements then contained, according to Ernest Pool of the University Settlement, 361,000 interior living-rooms without light or ventilation. The number of these insanitary and disease-breeding rooms has since been reduced by 31,000 through the efforts of earnest men and women, leaving still the great total of 330,000 of these death-traps.

When actual figures show that six people on an average are crowded together in three small rooms, two of which are often inside rooms, the sum total of the air space in these rooms averaging about 3,600 cubic feet, (which is only half the air space that six people should have) is it any wonder that so many are in such a pitiful condition of health and that the contagious diseases and tuberculosis are so prevalent in this quarter?

Charles Edward Russell writes that in the most crowded regions on the East Side of New York the increase of population from 1900 to 1905 was about 33 per cent., while the increase in the whole borough was only 14 per cent.

There are 51 blocks in New York that shelter nearly 200,000 persons and the congested lower East Side contains about 600,000 people. Its area is only 0.5 per cent. of the total area of the city. What kind of children can we expect from people living under such conditions? And it is from this quarter that a large proportion of school children are drawn.

These same insanitary and overcrowded conditions have existed in London's East Side (Stepney) for the past thirty or more years and we only need to read some of the recent articles on the subject to realize the gravity and horror of it all, and the appalling results to the people. Shall we not take warning from these conditions?

If one compares the tenements of Berlin with those of New York, one is at once impressed with the foresight of the German people in providing these beautiful, light, sanitary and airy tenement-houses with wide balconies and courtyards and playgrounds for the children. Germany knows that the strength of the nation depends on the health of the working masses.

As it has been shown (at our last International Congress on Tuberculosis) that tuberculosis costs the nation each year millions of dollars and as this dread disease follows closely in the wake of bad housing and bad feeding, it does not take much calculating to see that to prevent these evils, even at a great cost, would really be money saved to the American people.

This then, is the state of our great American cities and in case of war, our soldiers must needs be drawn from among these poor anemic underfed weaklings. What is the use of battle-ships if we have no men to man them? Is it a wise thing for the American people to sit still and say nothing when laws should be passed compelling the building of sanitary habitations with plenty of room to breathe and plenty of sunlight? What does all this investigation show? To my mind it shows that the present way the poor are fed and housed in the large cities is responsible for much suffering, many lives lost, much sickness, degeneration, demoralization and the blighting of thousands of lives.

I believe that the present condition of affairs in the congested parts of our great cities could be entirely changed and controlled by laws. This can never be accomplished by private charity but must be dealt with and provided for by the state and national legislature; since laws governing these things are necessary for the public safety, health, and welfare.

There is no reason why New York and other great cities should not have just as good tenements as Berlin. We are too busy in the games of graft and grab. It is simply our short-sightedness, greed and haste to get rich that has allowed us to build and retain the present style of insanitary tenements. Let us reform before it is too late.

TREATMENT

In the treatment of this condition our first duty should be to instruct the mothers in the schools and clinics, either by word of mouth or printed directions, as to what foods are best for the growing child, which are the most nutritious and healthful for the money, the best way to cook different foods, what articles of diet to avoid, and the necessity of plenty of fresh air and sunlight, and cleanliness. Warm clothing is a necessity.

These children should be given a highly nutritious diet, that is, foods that contain a large amount of proteid material. Table 2, from Atwater, shows the percentage of proteid in a number of common articles of diet which contain a high percentage of proteid and consequently have a high nutritive value, but when it is a matter of dollars and cents, we must choose those foods which are nutritious and at the same time inexpensive. The most of the foods in this table are comparatively inexpensive for their food value.

Table 2.—Foods That Contain a Large Amount of Proteid, According to Table of Analysis

	Proteids. %	Nutrients. %		Proteids. %	Nutrients. %
Beef	13.8 to 30	36.3	Cow's milk	3.4	12.6
Hen's eggs	11.6	23.2	Wheat flour	13.5	
Chicken	14.2 to 15.4	16.2	Graham flour	11.7	
Bluefish	10.2	40.3	Oatmeal	15.1	
Salmon	24.1	40.6	Maize meal	9.1	
Mackerel	15	40	Rice	7.4	
Smoked ham	14.6	51.2	Beans	23.2	
Bacon	2.8	85.2	Peas	22.9	
Dried beef	27	38			

Having suggested the proper foods, I will state the dietary I have found most valuable in these cases.

I placed the children on a diet consisting of milk (a quart a day) cocoa, eggs, red meat (once a day) fowl, fish, bread and butter, and cereals, such as oatmeal (of which 94 per cent of the nitrogenous matter is proteid), farina, hominy, corn-meal, rice, pure olive-oil, and cream should also be given if possible, with vegetables, such as spinach, stewed tomatoes, stewed corn, cauliflower baked and creamed potatoes, purees of beans or peas, and baked beans, and fresh fruit, such as oranges, pears, apples, raw and baked and in the form of apple sauce, and stewed prunes. The children were ordered to stop school, be out in the open air as much as possible, open the windows at night and air the room thoroughly by day, go to bed at 7 or 8 o'clock and take a rest in bed for an hour or two after the midday meal. Bathing was encouraged for the purpose of cleanliness, and a salt-water bath followed by a vigorous rub for its stimulating and invigorating effect

It was surprising how rapidly these children improved and gained weight with no other medication than a simple iron tonic. Some gained as much as a pound and a half a week.

A mixed diet, both in animals and in man, is usually taken better and the nutrients are more completely digested and assimilated than when only one food is used. Variety in foods of the same nutritive value stimulates the appetite and prevents the patient from tiring of any special food.

"For the same amount of money the most nutrients can be obtained in the form of milk, wheat flour, corn-meal, oatmeal, sugar, beans and cereals in bulk. Meats furnish proteid in large amounts but they fail to furnish carbohydrates as the vegetables do. It has been found that it takes six to eight pounds of cereals, besides forage crops, to make a pound of meat, consequently animal foods can never compete in cheapness of the nutrients with cereals and vegetables."[1]

Vegetables should be given in abundance since the vegetable proteid carries with it a large amount of potassium salts which are the predominating salts in muscles, neutralize acid products and forestall rheumatism. Wheat flour and wheat bread have a high nutritive value, and more nutrients can be obtained in this form for a given sum of money than of any other food, except corn-meal.

Experiments at the agricultural stations show that bread is a very digestible food. Ninety-eight per cent. of the carbohydrate and 88 per cent. of the gluten or proteid are assimilated by the body. These experiments showed that graham and whole wheat flour were not as completely digested and absorbed by the body as white flour, although they contained a greater amount of proteid.

A child is a valuable national asset and its welfare and healthy development is of great importance to the state, which should be legally under obligation to look after it. Children who are starved, through negligence, ignorance, or poverty on the part of the parents should be fed as every child has a right to be fed; there ought to be no such thing as a starving child in our land, especially in the public schools, where children are under the daily observations of their teachers. It should be the public duty to see that such children are provided with nourishing food.

In England, Scotland and France nourishing meals are given in many of the schools at a slight cost, and are paid for by tickets previously purchased by the parents. Many meals are given free. This has been done in a few schools in this country with success. No distinction is made between those who pay for these meals and those who are unable to do so.

Let us remember that the future as well as the present is our concern in considering this great problem. Shall we civilized people allow our poor to be fed and housed worse than our domestic animals? If these horrible conditions are allowed to continue and rob the masses of their vitality, what can we expect the next generation to be? There can be but one answer, one outcome. Look to London's Stepney for the answer.

I want to add this report to the reports of others, who have perhaps had a greater experience than my own or who have looked into this matter further than I have been able to do. It is only by exposing these conditions that we can reach the remedies. If by such publicity beneficent legislation may be brought about our efforts will not have been in vain.

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[THE DISCUSSION ON THIS PAPER WILL APPEAR IN A LATER ISSUE OF THE JOURNAL.]

1. Snyder: Human Foods.

SCISSORS-MAGNET EXTRACTION OF IRON FROM EYEBALL*

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Particles of iron or steel may remain embedded deep in the eyeball for long periods without becoming so enclosed or so firmly adherent as to prevent magnet extraction by the ordinary methods. In the lens the development of a traumatic cataract may rather facilitate removal; and particles remain freely suspended in the vitreous for considerable periods, responding to the attraction of the magnet very much as they would immediately after the injury. De Schweinitz[1] has reported cases in which the tip of the Sweet magnet placed at the scleral incision, not introduced within the eye, promptly removed steel from the vitreous in one case in five weeks, and in the other two months after the injury; and in a third case of six months' duration, although the foreign body was not secured on the magnet, subsequent inability to demonstrate it within the eyeball where it had previously been localized by the *x*-ray, and the subsidence of the retino-chorioiditis it had caused, seemed to justify the assumption that it had been removed. Hirschberg,[2] speaking of the Schloesser-Edelmann magnet, says, "With it I once extracted a splinter of 27 milligrams which had been for five months embedded in the retina and had already induced siderosis of the globe. The result was permanent and good."

In the series of Knapp and Stoll[3] a fragment was extracted through a scleral incision, after repeated trials with a giant magnet had failed to bring it forward, in one case at the end of six weeks, in another after 107 days. In the third case, after four months had elapsed, the foreign body was brought forward with a giant magnet and extracted through the cornea. At the Royal London Ophthalmic Hospital, as reported by McCallan,[4] foreign bodies were extracted from the depth of the eye (some of them, however, from the lens) after five weeks, seven weeks, six months (three cases), two years and three years.

Operative failures, however, are not so generally reported as successes; and in the literature there is abundant evidence that after a foreign body has been embedded behind the iris and lens for more than one month successful magnet extraction is the exception rather than the rule. McCallan, among 39 cases, most of the patients being treated shortly after injury, gives 4 in which the giant magnet failed to extract the foreign body and indicates definite causes for this failure: "In the first two cases the foreign body was encapsuled and adherent to the ciliary body; in the third case the piece of steel was very large and was firmly lodged in a rent in the sclerotic."

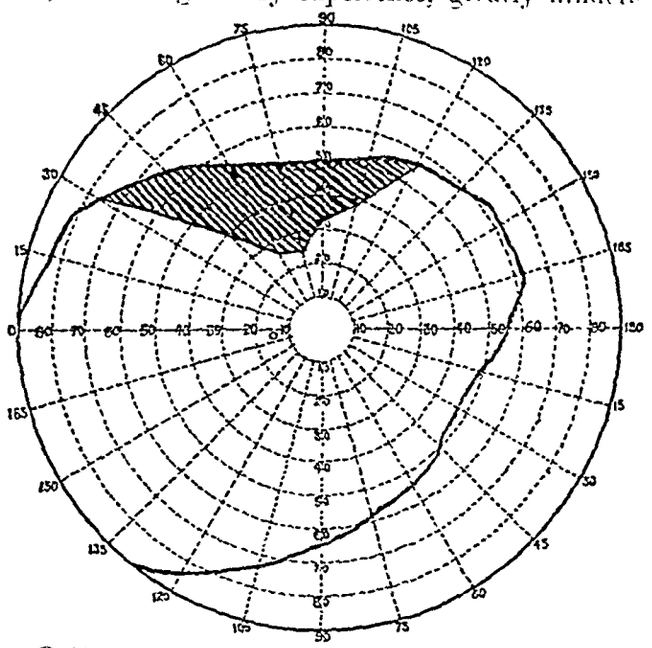
In a case reported by de Schweinitz, although the fragment of steel was large, it could not be drawn from its position in the sclera by a magnet in contact with it. Sweet,[5] among 57 cases of foreign body in the posterior portion of the eyeball, located by the Roentgen rays, records 6 in which the magnet failed to extract; 5 of the eyes were enucleated and a piece of magnetic iron or steel found embedded in fibroplastic cellular tissues. The periods in which this firm fixation of the fragment

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixtieth Annual Session, held at Atlantic City, June, 1909.

1. Tr. Am. Acad. Ophth. and Oto-Laryngol., 1904, p. 164.
2. Ophthalmoscope, February, 1905.
3. Arch. Ophth., July, 1907.
4. Royal London Ophth. Hosp. Rep., xv. 156.
5. Tr. Am. Ophth. Soc., 1901, p. 362.

had occurred were, respectively, eighteen years, three years, ten months, three months, five weeks, twelve days and four days. Millikin,[6] who had to extract such a foreign body with forceps, says: "I do not believe that the magnet has yet been invented that will draw small foreign bodies through tough fibrous tissue."

In the series of Knapp and Stoll,[7] among 9 cases in which the foreign body was recognized in the vitreous with the ophthalmoscope, the giant magnet failed to extract it in 4 of them; and in 5 other cases in which the foreign body was certainly present, though not visible, there was failure to extract with the magnet. Hirschberg, referring to a series of 64 of his later cases, says: "In 4 cases only of old splinter in the fundus (a small number in my opinion) was I unable to carry out extraction." Haab[8] gives as the reasons for failure in magnet extraction: 1. "The foreign body was seated too firmly in the back wall of the globe or had pierced it completely. 2. The splinter was seated in the ciliary body at first or was drawn there by mistake. 3. The splinter had produced fibrinous-purulent exudation which, according to my experience, greatly hinders its



Field of vision ten months after operation in Case 1.

movability. 4. The splinter had been healed over in the course of months or years." Snell[9] says the prospect of saving an eye will be inverse to the interval between the injury and the time when the electro-magnet is employed.

Enough has been said to develop the point that in a considerable proportion of cases the electromagnet, whatever its form and however used, fails to extract pieces of iron capable of magnetic attraction, because they are too firmly embedded in recent exudate or organized tissue. Such cases are sufficiently numerous to make it of interest and importance to consider a method by which some of these eyes may be saved; and such a method I believe we have in the use of scissors held in contact with the magnet while used to set free the foreign body. This is shown by the following cases:

Case 1.—*Fragment of steel in eye over five months. Beginning siderosis. Failure of giant magnet; localization by x-ray. Failure with large hand magnet. Extraction with scissors. Almost full vision.*

History.—A. N. A., a man, aged 21, was struck in the left eye, Feb. 26, 1907, by a bit of steel flying from a hammer. His fellow workmen said that a stream of blood came from the wound, and that something must have gone into it. (The accident happened in southern Mexico.) The doctor the patient saw could find nothing in the eye. A cloud appeared in the upper part of the field of vision, but this passed away in about two weeks, and the eye was not badly inflamed. The patient could see perfectly after this. The vision became gradually impaired, however, and had grown more rapidly worse for the last month. He now consulted a competent ophthalmologist, who made repeated trials on each of five different days with a very powerful giant magnet. Each trial caused very severe pain in the lower part of the eye so that he felt very nervous the rest of the day; but it produced no bulging of the iris or other displacement of the foreign body.

Examination.—August 6, 1907, he consulted me. Vision: R. 4/4 —; L. 2/100. There was a scar 1 mm. long in the nasal margin of the cornea. No opening was visible in the iris; but in the nasal part of the anterior vitreous was a triangular opacity, and the vitreous generally was hazy. Under atropin the opacity in the vitreous looked almost like detached retina, but was devoid of vessels. Radiograms made by Dr. G. H. Stover showed a very distinct shadow, indicating by the localization method of Sweet, a foreign body 9 mm. back of the center of the cornea, 6 mm. to the nasal side of the median plane, and 4.8 mm. below the horizontal plane.

Operation.—August 8, after the free use of cocain in crystal, an incision was made in the conjunctiva below the nasal border of the cornea. Then, pushing this aside so that it would give a valvular opening, a meridional incision was made in the sclera, beginning 7 mm. back from the corneal margin and extending 8 mm; the knife, entering 8 mm. in the direction of the foreign body, came into doubtful contact with it; an attempt being made with it to cut both above and below the particle of iron, with a rather free incision in front of it. The tip of the Johnson magnet was introduced twice, as nearly as possible in contact with the fragment. It was seen to drag the eyeball out of shape. When the particle was thus drawn on an attempt was made to seize it with the forceps, but this was unsuccessful. I then introduced scissors with blunt points as near to the foreign body as possible. Then the round end of the core of the magnet was placed in contact with the joint of the scissors, the current was turned on, and five or six distinct short snips were made with the scissors. They were then withdrawn, still in contact with the magnet, and the foreign body found adhering to the blades. It was the shape of an arrow-head 2.5 by 1.7 by 0.7 of a millimeter in size. The operation caused pain and faintness, especially during the first attempts to extract with the magnet; but the pain was not so bad as had been caused by the attempts to extract with the giant magnet. The eye was closed without any suture.

Postoperative History.—At the end of twenty-four hours there was moderate swelling in the parts, but the lines of incision could not be detected. General hyperemia of the globe was moderate; there was no pain. Vision had risen to 3/60, the patient noticing as soon as the eye was uncovered that "things looked much clearer." The general clouding of the vitreous was noticeably less, and in place of the dense opacity large floating shreds of white tissue were seen. The pupil was circular, 7.5 mm. in diameter. The eye was now left open and treated with atropin boric acid collyrium. The next day the hyperemia was less; a fair view of the fundus was obtained. Vision was 2/45. From this time improvement was steady and rapid. On the fifth day vision 4/20 partly, and on the 30th day 4/9 partly. At the end of three months it was 4/5 partly, at which it remains. The patient has finished a course in engineering with drawing and outside office work, without trouble with his eyes. The ophthalmoscope showed a very faint general haze in lower anterior vitreous, with a white scar having pigmented edges 1 disk diameter long and 1/3 disk diameter wide, at the extreme periphery of the fundus. The field of vision taken ten months after the operation is shown in the accompanying figure.

6. Tr. Am. Ophth. Soc., 1892, p. 572.
7. Arch. Ophth., January, 1906.
8. Haab, O.: Removal of Foreign Bodies from the Eye, The Journal A. M. A., 1902, xxxix, 463.
9. Ophthalmoscope, February, 1905.

CASE 2.—*Fragment of steel in the eye three years. Partial traumatic cataract; incipient siderosis. Failure of magnet alone. Scissors-magnet extraction. Preservation of useful vision.*

History.—W. A. H., a man, aged 34, came to me October 18, 1907, at the suggestion of Dr. L. G. Woodson, Birmingham, Ala. Three years previously his left eye had been struck by a small piece of steel. The resulting inflammation lasted about three weeks, but it had not been sore since. During the last two months the vision had been growing worse, although there had been some temporary improvement under treatment.

Examination.—The vision was R. 4/4; L. 4/15. The tension of eyeball was normal. The left iris was discolored, decidedly brownish, as compared with the right. The pupil was a little sluggish as compared with the right, slightly oval, long axis vertical. At the temporal periphery of the iris there was a small coloboma, although the scar in the limbus was not perceptible. The ophthalmoscope showed the right eye normal except that the smaller retinal vessels were slightly irregular in caliber and tortuous. In the left eye there was good fundus reflex in all directions through both the natural and the acquired pupil; but the details of the fundus were not well seen on account of the lens opacity. Under atropin this opacity was found to be net-like in appearance, situated in the deep layers of the posterior cortex, and about the posterior pole of the lens. Through it the larger retinal vessels appeared normal. In the extreme periphery of the fundus, downward and slightly inward, a black mass with a sharp edge projected into the field of view, probably the foreign body. Radiograms, made by Dr. G. H. Stover, gave by Sweet's method of localization, the shadow of a foreign body located 12 mm. back from the center of the cornea, down 9 mm. and to the nasal side of the median plane 4.5 mm., its size appearing to be 2.5 by 0.5 by 0.5 mm.

Operation.—November 20. Under local anesthesia with cocain crystals an incision was made by lifting the conjunctiva on the point of the knife, dragging it toward the vertical meridian, and making the scleral cut, starting 6 mm. back from the corneal margin, and 4 mm. to the nasal side of the vertical meridian, extending from this point 5 mm. back and slightly toward the nose. There was free bleeding from chorioidal vessels. The tip of the Johnson magnet was introduced twice, first between the lips of the wound, and later in contact with the foreign body. Slight pain was produced when the current was turned on, but there was no dislodgment of the foreign body. The tip of the scissors was then introduced as close as possible to the foreign body. The first time, the current was turned on before the magnet was in contact with the scissors, which were consequently jerked out of the wound. They were reintroduced, the magnet was brought in full contact with the joint of the scissors, and the turning on of the current produced no disturbance in the position of the scissors. About four snips were made with the scissors, which were then withdrawn, still in contact with the magnet, bringing the foreign body away on the tip of the blades. The foreign body was found to be a bit of steel 2.25 by 1.5 by 0.6 mm. in size, entirely covered with rust, except one edge. The bleeding ceased promptly; the pupil was widely dilated. There was some smarting in the eye during the day, but no aching.

Postoperative History.—November 22: There had been no pain. There was moderate ecchymosis. With the ophthalmoscope the black mass was gone from the lower periphery of fundus, and a white area was seen in its place. No hemorrhage was visible. Otherwise the ophthalmoscopic picture was unchanged.

November 27: Vision, L. 4/22, appearance of eye normal, except ecchymosis.

The eye remained entirely quiet after that time. At the end of two months, vision had risen to 4/12 + at which it still remains, without noticeable change in the lens opacity.

In both the above cases I had the counsel and assistance of my colleague, Dr. E. W. Stevens.

My first practical acquaintance with magnet extraction was as an assistant in the attempted removal of a minute fragment of steel, suspended in the vitreous a little way back of the lens, where it was easily watched with the ophthalmoscope. The approach of the magnet, or the turning on of the current, caused the fragment to be noticeably attracted toward the magnet; and this attraction increased as the magnet was brought nearer, until the tip, being introduced into the vitreous, began to push the vitreous before it, and so caused the entangled splinter to retreat. The attempt to remove the splinter was repeated several times, and always with the same result. The fragment was each time pushed away before the magnet tip until the foreign body became obscured by hemorrhage, and the eye was finally lost by suppuration. The magnet used was a small one. Its attractive force was not sufficient to overcome the resistance of the tissue in which the foreign body was embedded.

In every case successful magnet extraction depends on the sufficiency of the attractive force to overcome the hold of the tissue on the foreign body. Since the attractive force exerted is proportioned to the size of the particle to be extracted, the smaller particles require the use of a more powerful magnet. The giant magnet has the advantage of exerting its maximum power from a greater distance. But for particles embedded in the coats of the eye, or in blood clots, exudate, or organized scar tissue, no magnet yet made, or likely to be placed at our disposal, is sufficient to overcome the resistance which holds the foreign body in its position. After the experience just mentioned it occurred to me that a knife might have been thrust in so far as to make a free passage for the suspended splinter through the vitreous, and that if the blade of the knife were rendered magnetic it could almost certainly be brought in contact with the foreign body. This plan I have tried, however, without success, in a case seen in consultation, in which the foreign body could not be seen, having been long embedded in the ciliary region.

In 1903 our fellow member, Dr. Connor[10] reported the use of a strabismus hook, connected with the giant magnet and introduced through the corneal wound to disentangle a splinter of steel that had become caught in the iris. The same year Mr. Lang[11] reported a device consisting of a steel spatula, connected with Haab's magnet by a flexible iron wire cable, to complete the removal of a foreign body drawn into the anterior chamber by the giant magnet. This function is performed by the scissors after the foreign body has been dislodged. But this is obviously different from the use of the magnetic force to direct a cutting instrument to the foreign body, and thus to disentangle and furnish a free passage for a fragment of iron or steel which could not be started, by the magnetic force alone, from the position in which it was embedded.

In the two cases reported the scissors used were curved on the flat and had fine but slightly blunted points. It is important that the contact with the tip of the magnet should be made at the joint of the scissors, where the attraction of the magnet for the scissors will cause little or no interference with the necessary movements for snipping. The scissors should be introduced so that their tips are a very little short of the position of the foreign body; and the magnet tip should be brought in full contact with them and in the proper position before the current is turned on. Then the magnetic attraction will force the intervening tissue

10. Connor, Leartus: The Giant Magnet in Ophthalmic Surgery, THE JOURNAL A. M. A., 1903, xl, 772.
11. Roy. London Ophth. Hosp. Rep., xv, 296.

between the tips of the scissors and hold it there. The snipping first causes the opening of a passage to the foreign body. Later, as the foreign body tends to slip on the blades of the scissors, the repeated cuts divide bands of tissue that tend to retain it. It is conceivable that a fragment of iron or steel might be of such shape as to require to be thus freed on both sides before it could be withdrawn; but generally the movements of the scissors tips will so disturb its position that reintroduction in a somewhat different direction will not be necessary.

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[THE DISCUSSION ON THIS PAPER WILL APPEAR IN A LATER ISSUE OF THE JOURNAL.]

THE FAUCIAL TONSILS AND THE TEETH *

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I have given my paper the above title, not because it is my purpose to say much about the teeth, but because I desire to emphasize the importance of the tonsils from the standpoint of the dentist. Tonsillar disease is so insidious in its origin that in most instances it goes unrecognized until the damage to the neighboring organs and even to the general health of the patient is almost irreparable. The tonsils and the teeth are alike at least in this one respect, and the time to cure either is before the disease begins. In other words, we do not see our patients early enough to give them the best kind of service. The tonsils and the teeth, on the other hand, are very unlike in respect to their physiologic importance to the human economy. No one questions, I suppose, the value of the teeth and the desirability of perfecting and preserving them in all their functional integrity but the tonsils have fallen into disrepute and they seem scarcely to have justified their right even to existence under any circumstances whatsoever, so that we find some who advocate their wholesale removal whether they are diseased or not. This, however, would seem to be an extremely radical measure for the correction of a great evil. It is too much like advocating the hanging of all men because some men are murderers.

The faucial tonsils differ but slightly, either histologically or functionally, from similar glands in other portions of the body, but their general and applied anatomy may be worthy of a brief description.

The faucial tonsils are situated on either side of the oropharynx between the pillars of the palate, and in their normal condition they are scarcely demonstrable without the aid of an instrument to draw them into view. The normal faucial tonsil varies in size but it is generally not larger than a small almond, which it somewhat resembles in shape. It rests on the fascia of the superior constrictor muscle, which muscle separates it from the large blood vessels and other important structures in the cervical region.

A diseased faucial tonsil is generally more or less hypertrophied in all its parts. It does not necessarily project far into the fauces, but it is often grasped between the pillars of the palate and the triangular fold, or so-called plica triangularis, by means of which it is held down in its bed in the tonsillar fossa. These submerged tonsils are not, as a rule, obstructive, but they are sometimes very large, extending upward and backward even as far as the Eustachian tube, on which they often press, interfering with the air, and blood circulation of the ear, and causing disturbances of its function.

In addition to the triangular fold which partially covers the inner and anterior portions of the tonsil, the gland is enveloped in a fibrous capsule which separates it from the surrounding tissues and lines the crypts, which extend through the entire gland and open upward into the supratonsillar fossa. The drainage, therefore, of these tonsils is extremely faulty, and the result is that the pent-up secretions become foul-smelling, and exceedingly irritating when once they have been discharged into the mouth, to say nothing of the vast numbers of bacteria which are constantly being absorbed into the general system through the lymphatics and glands of the neck, causing tuberculosis, rheumatism, scarlet fever and other infections and exanthems.

The function of the normal tonsil is still a subject of discussion. We do not know what it is, but this much we do know, that a diseased tonsil is not only a menace to the general health, but a source of local infection to the oral cavity, harmful alike to the mucous membrane lining this cavity and to the teeth which we are striving so hard to preserve.

Diseased faucial tonsils affect the teeth in three ways. First, they interfere with the general health of the patient and thus with the proper nourishment of the teeth. Second, they contribute very largely to the local invasion of the teeth by the numerous bacteria which emanate from their crypts. And, third, they interfere by pressure with the alignment of the teeth and with the normal development of the maxillary bones.

That the general health is impaired by direct infection from, and through, these glands is a fact which has been proved beyond any possibility of doubt. Dr. George B. Wood has shown, in a series of experiments on hogs, that tubercule bacilli of a virulent nature frequently invade the tonsillar tissues in preference to other portions of the throat, and that even an apparently normal tonsil is unable to filter them out. He and others have also shown that the tonsils and lymphatic glands of the neck combine to form a direct route for the invasion even of the contents of the thoracic cavity, such as the pleura and apices of the lungs. Tuberculous glands of the neck and even pulmonary tuberculosis may therefore be traced directly to diseased faucial tonsils; and my own experience has led me to believe that cervical adenitis, whatever may be the specific character of the infection, may, in the great majority of instances, be traced directly either to diseased tonsils or teeth, or to both of these sources combined. Moreover, when we consider the fact that the efferent lymphatics drain into the venous circulation, we have an explanation of the anemia and other symptoms of blood impoverishment which always accompany diseased tonsils and teeth. We have here, therefore, what has been called a "vicious circle." The diseased tonsil, or tooth, transmits its infection through the cervical glands and lymphatics to the circulation, impoverishing the blood which, on its return, fails to nourish the tonsils and teeth properly, and thus disease of these organs is further elaborated and extended.

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* Read in the Section on Stomatology of the American Medical Association, at the Sixtieth Annual Session, at Atlantic City, June, 1909.

Futhermore, a diseased faucial tonsil is usually more or less catarrhal in its character and its secretions are often filthy in the extreme. The oropharynx is thus kept more or less bathed in infectious secretions, and the teeth naturally suffer as a result. In a similar way, of course, the normal tonsil may be affected by infectious material from diseased teeth.

The third manner in which the teeth are affected by hypertrophied tonsils is by pressure of the glands on the posterior molars and on the ends of the alveolar arches. So far as I know, this factor in the production of alveolar irregularities has not been referred to in literature, and yet it seems to me to be one of no little importance. These glands are sometimes very large and of firm consistency, and the more or less constant pressure which they exert on the surrounding structures produces marked deformities. I have already referred to the injurious effect of tonsillar pressure on the Eustachian tube, the lumen of which is often so altered as to interfere with the circulation of air in the middle ear, and I need now only to mention, in addition, the marked bowing of the palatal half-arches, the posterior one being crowded backward against the lateral portion of the post pharyngeal wall, interfering with the normal nasal breathing, and the anterior one crowded forward against the molar teeth and their alveolar processes, this latter pressure being alternately increased and diminished by the acts of articulation, mastication and deglutition.

A similar outward bowing of the superior constrictor muscle also takes place, causing pressure, both on the large vessels of the neck, interfering with the blood circulation in all the structures of the head and face, and on the important nerve trunks in this region, causing neuralgias and various trophic changes in the facial and even the cerebral tissues.

The indirect effect of diseased and hypertrophied tonsils on the teeth and their settings, through forced mouth-breathing, has been described fully by numerous observers; and here, by the way, we have another vicious circle. Just where the circle begins is a mooted question, but whether the tonsils cause the mouth-breathing and the resultant dental irregularities, or whether the dental irregularities cause the mouth-breathing and the resultant tonsils, should not concern us so much as the fact that it is obligatory on us as dental and oral surgeons to break in on this vicious circle at as many points as possible and promptly destroy its disastrous cumulative effects.

We can not cure mouth-breathing and its resultant disastrous effects, in all cases, merely by the removal of tonsils and adenoids. When there are dental irregularities which make it impossible, difficult or even a little inconvenient to close the mouth, something more than tonsillectomy and adenoidectomy must be done. And likewise we can not always cure mouth-breathing by making it possible or convenient to close the mouth, but the nasopharyngeal and oropharyngeal cavities must be made free for the passage of the breath currents, else the breathing can not be normal, nor indeed can the dental arches long remain normal, at least in young children.

My plea in this paper, therefore, is for the eradication of all glandular obstructions to the normal development of the teeth and the alveolor arches, prior to any attempt to remedy the structural defects of these organs.

The tonsils, like the teeth, are subject to change and decay. The structural changes of the tonsils are far greater than those of the teeth. Certain portions of them, up to the age of puberty, undergo marked hypertrophy and thus, in some instances, they become very large. In later years, by a process of disintegration or degeneration, it is true, they grow smaller, but except for the ill effects of the pressure, these small and degenerated tonsils, owing to their catarrhal condition, are more harmful than the larger ones, and give rise to more or less trouble during the life of the individual.

It is not good practice, therefore, to wait for the so-called atrophy of large tonsils. An atrophied, like a hypertrophied tonsil, is usually diseased and it bears some resemblance to a diseased tooth, but inasmuch as the tonsil can not, by any possible means, have its original function restored, whatever that function may have been, the only method of dealing with it is to enucleate or extirpate it. No half-way measures will suffice. I should as soon think of leaving the diseased root of a tooth in the mouth as of taking off only a portion of a diseased tonsil. The modern operation, therefore, is tonsillectomy and not tonsillotomy.

SUMMARY

The faucial tonsils and the teeth are in close approximation and they are alike subject to disease or degeneration.

Diseased tonsils and teeth are locally and systemically unhygienic.

Secretions from the tonsils may infect the teeth, and contrariwise, the tonsils may be infected by the teeth.

Diseased tonsils and teeth cause headache, earache and facial neuralgia, and they become a direct source of infection to the glands of the neck and through the efferent lymphatics to the general respiratory and circulatory systems.

Hypertrophied faucial tonsils often become so large as to effect the hearing, the circulation of blood, the nerve supply of the face and head, and the normal development of the alveolar arches.

The teeth serve important purposes, but the exact function of the tonsil has not yet been demonstrated.

The importance of preserving the teeth is fully recognized, but the diseased tonsil is not worth preserving, because it has lost its usefulness and become a menace to the human economy.

The only rational remedy for diseased faucial tonsils is total extirpation.

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[THE DISCUSSION ON THIS PAPER WILL APPEAR IN A LATER ISSUE OF THE JOURNAL.]

Doctors, Dogs and Other Detrimentals.—According to press reports the physician is now to come under the ban in high class apartment houses, with "dogs or cats or children of a tender age." The reasons are two-fold: First, their "signs mar the esthetic appearance" of the building, and second, "there is an almost constant stream of people running in and out of their halls." We bow to the genius of the inventor of the first objection. Regarding the second, as is the case with children, so with practices. There are those of tender age that are not overburdened with callers, as well as more mature ones with "a constant stream of visitors." Why not establish an age line for practices, the reverse of that prevailing in the case of children—say children under eight not admissible, and physicians whose practice exceeds ten callers a day? The advent of an "addition" to cancel the lease in one case; the eleventh patient in one day to cancel that in the other. There is nothing like having a fixed standard.

AMEBIC DYSENTERY

A PRELIMINARY NOTE BASED ON CLINICAL AND PATHOLOGIC STUDIES

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The subject of amebic dysentery is one that is commanding increasing attention in all tropical and temperate countries. It has not been a great while since it was universally believed that this form of dysentery existed only in tropical countries, except in those cases in which it was imported from the tropics to temperate climates. Many cases, however, have been reported from various sections of temperate countries, and in patients who have never been away from their immediate surroundings. There is, then, no doubt about amebic dysentery having been contracted out of the tropics. Just how this infection could occur is difficult to understand; a theory has been suggested, and is accepted by many, that the cases of infection away from the tropics occurred from eating uncooked tropical fruits on which the amebæ had been imported. There is no one who has established any scientific facts in support of this theory, so it remains altogether problematic. There are cases, however, of amebic dysentery in which the patients did not become infected by eating or handling tropical fruits. My partner, Dr. J. M. Mathews, and I, with our assistant, Dr. C. D. Render, have had a half dozen of such cases under our care in the past few months.

CASE 1.—*History.*—A young man aged 28, came under our observation last September. He lived in an isolated district in the mountains of this state. He declared that he could scarcely remember having eaten tropical fruits at any time, and especially at any time near that of his infection. The patient did give a history, however, of living in a valley and of drinking water from a well in which surface water finds its way easily when heavy rains have fallen. He was drinking water from this well at the time when he was stricken with dysentery, and he stated that the well was almost overflowing a short time before he was taken ill.

Present Illness.—Last December he was taken suddenly ill with intense cramping pains in the lower portion of his abdomen and a violent diarrhea. His condition grew rapidly worse and it was thought that there was no hope for his life. After four or five weeks he began to improve slowly and during the latter part of the following February and March he could walk around the house. His diarrhea continued, however, and in April he had a relapse in which his condition was even worse than at the time of his first attack. His weight before his first illness was 140 pounds; it was now reduced to 85 pounds. He had periods of improvement and relapse until he came to Louisville during the following September. When he first appeared in our office his general appearance was typical of one in the advanced stages of cancerous disease or tuberculous infection. He was using, and had been for months, opium suppositories for the relief of intense suffering in his rectum and lower portion of his abdomen. Examination revealed, at once, numerous ulcers in the rectum and sigmoid. Scrapings from these ulcers showed myriads of motile amebæ.

CASE 2.—*Patient.*—A man aged 61 consulted us recently on account of a distressing diarrhea. There was no history of having eaten or handled any kind of tropical fruits. He did not eat raw fruits of any kind and his occupation did not require his handling or being about fruits.

Present Illness.—This patient's condition was quite as bad as that of the young man referred to and the amebæ that were found on examination were as numerous. His infection dates from last September. During the previous months there had been little or no rain and the water supply in his section of the country was completely exhausted. Water that was acknowledged to be absolutely unfit for drinking purposes was shipped in from the surrounding country and was so used.

Other patients have given similar histories, both as to the abstinence from eating or handling tropical fruits and the impurity of the water supply. I feel confident that the chief source of infection, in the cases of amebic dysentery occurring in this country, is from drinking-water. We have been so thoroughly saturated with the teaching that amebæ are indigenous to the tropical countries only that we can with great difficulty see the plausibility of any opposing arguments. In the tropical countries amebæ are most numerous and active; therefore, amebic dysentery occurs in these countries with the greatest frequency and severity. I am confident that amebæ are indigenous to our own country, but that they are situated in a less favorable environment and are necessarily fewer in number and less vigorous. We would then naturally expect that the disease they produce would be less frequent in its occurrence and less severe in its effect in temperate climates.

DIAGNOSIS

It is well known to those who are at all familiar with this character of work that the diagnosis is almost always made from the microscopic examinations of the material excreted from the bowel, especially the bloody mucus. It is in this material that amebæ are most abundantly found. It is not in every case, however, that we find bloody mucus, and if it were present the amebæ may be very inactive and much more difficult to make out at one time than another. Where there is but little or no mucus the fecal material must be made liquid by adding water until a suitable consistency is obtained for microscopic examination. The specimen now prepared is one that contains but few amebæ, and there can be no difficulty in understanding that when it has been much diluted numerous examinations would most likely reveal negative findings. If it be true that amebæ produce the ulcerations found in the mucous membrane of the intestine in these cases, is it not reasonable to suppose that these ulcers afford the sites of greatest amebic activity? Admitting this, we would expect to find but few amebæ present in a case of amebic dysentery in which there are but few pathologic conditions in the intestine. Only those that were cast off from a very inactive pathologic process would occur in the discharges.

I do not rely on the examinations of the intestinal discharges, but invert the patient and thoroughly scrape the ulcers with a sharp curette. In this way the amebæ will be observed at once if they can be found at all. We have failed only in a few instances to find the amebæ when sought for in this way, and in these cases they were found later, after all treatment had been discontinued for a few days. In the twenty-four cases treated in the last ten months I have not failed in a single instance to observe ulcers in the rectum and sigmoid and from these demonstrated the presence of motile amebæ.

There is no difficulty in making out the presence of any kind of ulceration, or any other pathologic condition, in the mucous membrane of the lower bowel when this method of examination is employed. If the mucous membrane is found to be soiled by any kind of discharges two or three glassfuls of water can be poured through the proctoscope into the rectum and the patient allowed to pass it out at once, after which the examination can be easily made.

I have called attention to the fact that it is often very difficult to find motile amebæ when the patient is under active treatment. In such cases we advise a discontinuance of the treatment for a few days, after which the motile amebæ can be found. Numerous motile amebæ may be found, however, when the patient is being actively treated. Unless the stage is kept warm the amebæ can not be made out. I have often failed to observe them at first, but after the stage had been warmed they were seen in large numbers.

There are numerous individuals, all over the country, who have amebic infection which is not recognized as such. My partner, Dr. J. M. Mathews, says that he is confident he has treated hundreds of such cases in the past and did not recognize the nature of the infection.

Nearly all the cases in which the patients have become emaciated are diagnosed as having cancer or intestinal tuberculosis. A certain percentage continue to grow worse and die; others linger along with periods of improvement and relapse. Careful scientific investigation will reveal the real nature of the disease in all such cases.

TREATMENT

Since this form of dysentery is due to the presence of a parasite located in the lower portion of the alimentary tract it has very naturally been treated both from above and below. No one plan of treatment has, however, been accepted as being far superior to another; and, what is especially peculiar in the treatment of this disease, is the uncertainty that any treatment yet suggested has been successful in effecting a permanent cure. Everyone who has had experience in the treatment of amebic dysentery feels that his patient is very liable to relapse; and, since relapses have been reported to occur from one to five years after treatment, little faith may be had in a permanent cure. When such long periods have elapsed before the symptoms return, however, I think some consideration might be given to the suggestion that reinfection has taken place. There is no argument produced against reinfection, whether the period dating from a supposed cure be long or short, unless the environment of the patient be materially changed.

Diet.—I believe a great mistake is made in restricting the patient's diet too severely, both as to quantity and quality of food. Unless the patient is in the acute stage of the disease his diet should consist of liberal quantities of rich nourishing foods, barring most vegetables, fruits, and sweets. Especially is this true if the patient is anemic and emaciated, as we find this condition so often obtains. The second patient above referred to, who is 61 years of age, was advised to eat a good full meal before any kind of treatment was suggested. He did this, and when he returned to the office he had experienced no discomfort; half of his trouble seemed to have been dissipated. This is one of many similar cases. All of our patients, except for some special reason, are fed liberally.

Rest.—This is, without doubt, a very valuable feature in the treatment of this disease. We had one patient, however, in whom rest in bed was of no value whatever. Rest, of course, is of most service to those who are acutely attacked or much weakened from emaciation It has often been observed that patients do exceedingly well when they remain quiet, but when they begin to go about and resume business cares they relapse into the former condition.

Dr. W. E. Deeks[1] speaks of absolutely curing patients in from one to four weeks by what he terms the "rest supportive treatment." He gives a milk diet, with a preliminary dose of castor-oil; the only internal medicine thereafter being heroic doses of bismuth subnitrate, with a few normal saline irrigations if there is much tenesmus. I am strongly of the opinion that he will have a number of relapses if he keeps these patients under observation.

Remedies Administered by Mouth.—Of these agents none have been relied on in any comparison to that of ipecacuanha. While it is held in much less favor than formerly in the temperate countries, it has many ardent supporters, especially in India and Egypt. Sir Patrick Manson[2] says: "Ipecacuanha does influence amebic dysentery. It perhaps does not kill the ameba, but deprives it of its pathogenic powers. Quinin, opiates, bismuth and all kinds of intestinal antiseptics have been given with uncertain results.

Remedies Administered by Rectal Injections.—Various sedatives have been employed for the relief of pain —flax-seed water with laudanum, starch water with laudanum, etc. A large number of parasiticide injections have been used—bichlorid of mercury, permanganate of potassium, silver nitrate, thymol, boric acid, quinin, etc. The latter has been used more extensively than any other parasiticide injection. None of these agents acts well in all cases. Tannic acid solution and ice water have also been used extensively in this country. Two years ago we had a Philippine soldier under our observation: quinin irrigations had been used through his appendix for months with no favorable results.

Coal-Oil.—Having failed in the employment of various agents recommended I conceived the idea of irrigating the bowel with refined petroleum, commonly known as coal-oil. I had observed that this agent undiluted would kill all varieties of parasites inhabiting the skin surfaces of any animal: so I reasoned that if it could be used in sufficient strength, considering the safety of the tissues, it would probably act as a parasiticide in the case of amebic infection. Not knowing just what effect it would produce on the mucous membrane, etc., I exercised great care in the amount of oil employed at each irrigation. I began with about an ounce in each quart of water and carefully watched for complications; none were manifest, so I began systematically increasing the percentage of coal-oil with each irrigation. I would continue for a while and then cease to increase the amount for several days, and again I would carefully increase the percentage of oil, until finally I was amazed; I would inject four or five ounces of undiluted coal-oil into the bowel with no untoward results whatever. Having lost much of my sense of fear, I began increasing the amount of pure oil at each irrigation, until now I have no hesitancy whatever in injecting a quart or more of undiluted coal-oil through the rectum, or, in cases of appendicostomy, the appendix. We have never had an untoward symptom from its use in any quantity.

I have treated all of our amebic dysentery patients for the past ten months with undiluted coal-oil. The general plan has been first to place the patient in the inverted position and introduce a proctoscope, through which a normal saline solution is poured into the bowel for the purpose of cleansing it of fecal material, mucus,

1. Med Rec., lxxiv, No. 24.
2. Brit Med. Jour., Oct. 24, 1909, p. 1253.

necrotic tissue, etc. The patient is allowed sufficient time to return this solution—from one-half hour to an hour and a half. He is again placed in the inverted position, the proctoscope introduced and any amount of oil, from one glassful to a quart or more of undiluted coal-oil, is poured into the bowel; the patient is then requested to remain in the recumbent posture for a half hour or longer.

The inverted position herein referred to is fully described and illustrated in a previous article.[3] Since that publication I have done some original work[4] on the introduction of various instruments into the rectum and sigmoid. In this experimental work I demonstrated, by the introduction of bismuth, etc., that it was not difficult to introduce various solutions along the entire length of the colon, and even beyond the cecum, when the inverted position was employed. No tubes or bougies are necessary. They, in fact, serve to defeat the object sought.

If it is true that the chief focus of infection is in the cecum and ascending colon, in amebic dysentery, there is no other way that parasiticides and astringent solutions can be so easily conveyed to the site of greatest pathologic activity. Of course, it is impossible entirely to cleanse the cecum and ascending colon by preliminary irrigations with plain water or normal saline, so the subsequent irrigation of oil or other parasiticide is necessarily diluted and is, therefore, deprived of the effects of its full force.

All our patients have responded satisfactorily to this treatment with the exception of two; and these have not allowed us to carry out every detail of the treatment. We have advised appendicostomy in these cases, however, and if such a procedure is agreed to the oil will be used through the appendix, as we have done successfully in a number of other cases. Of course, we will keep, so far as it is possible, these patients under observation and note later the results of this plan of treatment.

We are not now prepared to make definite statements as to the influence of coal-oil on the amebæ outside the intestinal tract, but we expect to be able to do so in the uture.

Masonic Temple.

The Regeneration of Peripheral Nerves.—F. Karl Walter (*Inaug. Dissert.*, U. Rostock, 1908) gives a summary of the previous work on this subject and especially discusses the work of Bethe and of Cajal. He does not deny the existence of a chemotactic influence, exerted by a degenerating stump, on the outgrowth of nerve fibers. It is thought outgrowth from the central stump does not extend throughout the peripheral stump (thus forming a new nerve fiber) as maintained by Cajal. Sectioned nerve fibers are capable of regenerating, independently of any influence from the central stump, to the axial band-fiber stage of Bethe, or the embryonic nerve fiber stage of Howell and Huber. This is an atypical nerve fiber of embryonic appearance not yet capable of functional activity or of electrical response. Unless connection with the central stump is established, further regeneration ceases and degeneration follows. When united to the central stump a normal functioning nerve fiber results. The new nerve fiber is formed from the neurolemma—the sheath of Schwann—the fibrils from the nuclei, the medullary sheath from the protoplasm. Connection with the central stump immediately after section hastens all stages of regeneration in the peripheral stump

3. Hanes, Granville S.: A New Position for the Diagnosis and Treatment of Diseases of the Rectum and Sigmoid Flexure, THE JOURNAL A. M. A., Oct. 3, 1908, li, 1134.

4. Kentucky Med. Jour., March, 1909, vii, 173-181.

THE ACCOMMODATION AND DONDERS' CURVE AND THE NEED OF REVISING OUR IDEAS REGARDING THEM

AN EXPERIMENTAL STUDY *

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NEED OF REVISING DONDERS' WORK

Of the many invaluable contributions that Donders made to our science certainly one of the most important was his determination of the range of accommodation at different ages. His researches, indeed, all admit to be fundamental. For that very reason we must avoid ascribing to them an exactitude and a validity which they do not possess and which Donders himself did not claim for them.[1] For we must remember that the number of cases utilized by Donders was small and the individual variations that they presented were rather considerable. Thus his estimate that 7 D represents the normal range of accommodation at the age of 30 is based on but five cases, the accommodation of which was found to vary between 6 and 9 D. It is obvious that more numerous observations might have extended these limits in either direction and have given a different value for the mean. Furthermore, the observations of Donders were based on the assumption that his subjects were actually emmetropic—an assumption which, in the absence of precise cycloplegic tests, must be regarded as erroneous for at least some of them.[2] Finally clinical experience has proved to many of us that in some respects the course of presbyopia runs otherwise than Donders taught.

In view of these facts and of the great practical importance of the subject it seems advisable to extend and check Donders' investigations as fully as possible.

OUR OBSERVATIONS; METHODS EMPLOYED

The observations here detailed, made by Dr. J. B. Thomas and myself, are a contribution in this direction. The plan which we have been pursuing—for our investigations are still unfinished—is to render each patient emmetropic by applying the full correction of his refractive error and then to determine his near point with Prince's rule. This gives the corresponding amount of accommodation in diopters, which, as the patient's far point has been placed at infinity by his glass, evidently represents his full accommodative power.

In carrying out such a plan the following precautions must be observed:

1. The subject must be made really emmetropic, i. e., his refraction must be wholly and accurately corrected. To effect this in our cases the refraction was carefully determined in every one, and a cycloplegic was used in

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixtieth Annual Session, held at Atlantic City, June, 1909.

* A preliminary statement of the results here given was presented to the American Ophthalmological Society last summer. This statement, however, being based on insufficient data, was intended to be provisional only, and as a matter of fact contains some inaccuracies.

1. He says: "The deviations [from] the mean course are not particularly great. And still they must undoubtedly in part be ascribed to errors of observation."

2. Thus Donders, speaking of the hyperopia which he believes to develop later in life, says: "I have not infrequently met with this in persons at sixty years of age, who in their youth probably exhibited no H whatever. This was inferred when they did not before the forty-fifth year of their life, need spectacles in the evening for minute work." As up to the age of forty-five a hyperopia of one or even two D may remain latent, such an inference is not to be relied on. Donders himself admits: "In some a slight degree of [latent] H may also increase the deviations."

all but a very few under 48 and in some over that age. Special care was taken to determine the astigmatism accurately to within 0.12 D.

2. The subject's vision must be such that he can make the fine distinctions required. We were, therefore, obliged to reject cases of irregular astigmatism, most cases of high myopia and of high astigmatism even when corrected, of amblyopia from any cause, but especially amblyopia associated with any defect of central vision, of poor sight from corneal or lenticular opacities, etc. Persons thus affected can not discriminate between the blurring due to accommodative failure and the blurring due to their naturally defective vision. In general no subject was utilized whose vision was less than 20/20.

3. The full correction being applied, and the eye not under examination being screened, the test object is brought up until it blurs, then withdrawn until it clears, and then carried back and forth several times until we can be sure of the very nearest point where it begins to blur. This will be the near point, and the corresponding amount of accommodation in D, read off from the scale, will give the patient's range.

4. If the near point is closer than 10 cm. a slight error in determining its position will involve an error of one or more D in the value found for the range of accommodation. In such cases, after making the test with the full correction alone, it is well also to make it with this correction combined with a —3.00 or —4.00 D sphere, so as to carry the near point out beyond 10 cm. The value then found for the range must be increased by the amount of this added lens. But it must be noted that the estimate thus obtained is generally too low, and a value found in the ordinary way which does not exceed such estimate by more than one or two D, may be regarded as accurate.

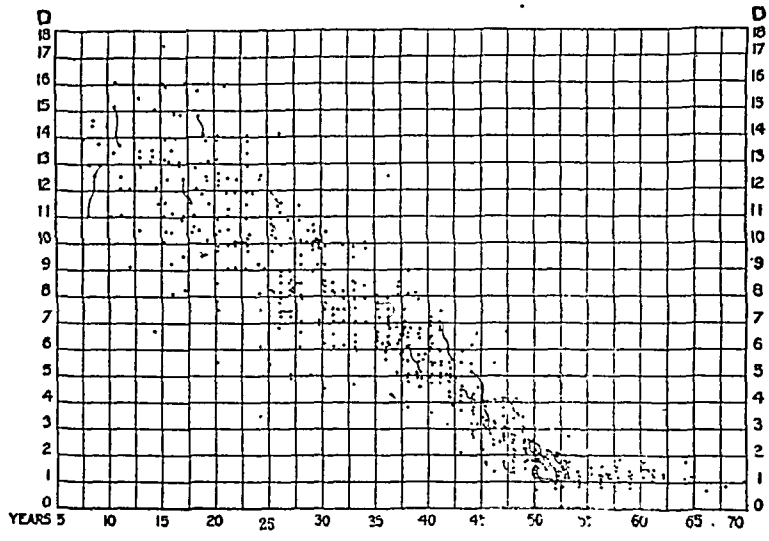
5. If the near point is beyond 40 cm. it must be brought within measurable distance by the addition of a convex glass to the patient's full correction. From the value of the range thus found the strength of this convex addition must, of course, be subtracted. The addition in any case must be as small as possible, for a strong convex glass often brings the near point closer than it should be theoretically, so that the value of the range found with it is too great by a diopter or more. This will not happen if the convex addition is made only just large enough to bring the near point to between 30 and 40 cm.

6. For reasons that will be enlarged on later it is necessary to make repeated tests in the same case in order to discover the subject's accommodative power. This is especially true of young subjects in whom the first test rarely reveals the true range. Because of this fact we have been obliged to exclude a number of observations in which we were able to make the test but once under proper conditions, or in which the subject later exhibited a greater accommodation.

7. We must make sure that the patient tested understands just what is required of him. In particular we must tell him (a) to put forth all his efforts and strain as hard as he can, so as to focus down on the test object at the closest possible point; (b) to be careful to indicate the precise point where the test object begins to blur—not the point where it becomes entirely confused.

8. We must be sure that the patient is physically fit for the test. He must not be incapacitated from exerting his full accommodative power by muscular exhaustion, neurasthenia, or similar causes. In our series of cases we had to reject a number of observations in which the patient exhibited a temporary incapacity thus occasioned.

9. The test object must be satisfactory. None has proved perfectly so for all persons and at all ranges. Donders used a wire optometer and fine print. For most people, however, these two tests, and especially the latter, make the near point appear too close—giving thus an overestimate of the range. After trying various objects—dots in pairs and groups, parallel lines, simple geometric figures, etc.—we found the best test



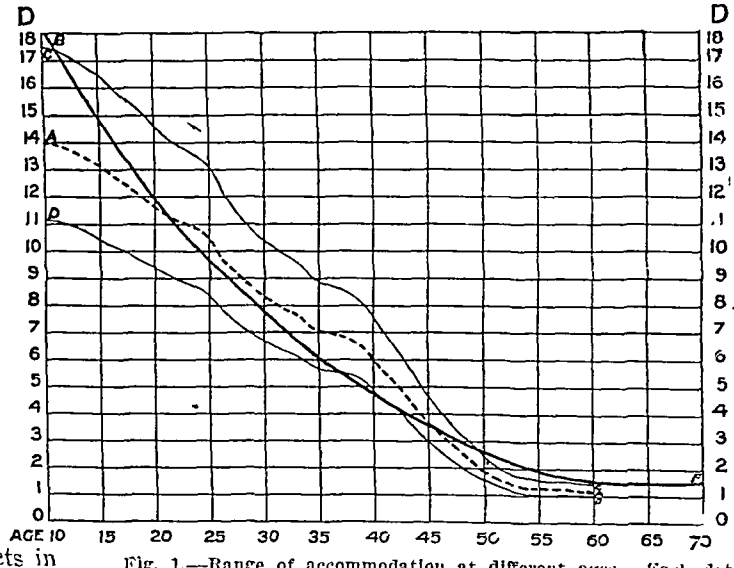


Fig. 1.—Range of accommodation at different ages. Each dot denotes a separate subject, the position of the dot indicating the subject's age and the amount of his accommodation. Two dots connected by a wavy line mean the same subject at different ages. The near point in all cases was measured from the anterior focus of the eye (i. e., from a point 13 mm. in front of the cornea).

Fig. 2.—Comparison of observations with Donders' curve. AA, curve representing the mean of our observations. (Before the age of 25 and especially before the age of 15, this curve can not be regarded as certainly determined, although it is probably not over 1 D out of the way.) BB, Donders' curve, modified so as to conform to our plan of measurement (from the anterior focus of the eye) and to represent the absolute range and not, as is usually done, the absolute near point in his cases. CC, represents the upper and DD the lower limits for normal subjects according to our observations.

object[3] to be a single engraved black line, 0.2 mm. thick and 3 mm. long, bisecting a dull, white, oblong card which is 3 mm. long and 1.25 mm. wide and is mounted on a disc of black velvet. The moment the line is brought within the near point it blurs (broadens) and then doubles. The line should be so held as to be most clearly seen. Most people see it best when held vertical.

10. The illumination should be suitable. This is a matter of great importance, and lack of attention to it may cause an underestimate of one or more D. The light must be good but not dazzling (diffused daylight is the best), and must come almost straight from behind — over the right shoulder when the right eye is tested and over the left shoulder when the left eye is tested. There must be no shadow on the card which bears the line and no dazzling reflections nor confusing lights beyond it or alongside. For this reason when the test is made with Prince's rule, the latter should be held with its broad side vertical, for if held horizontal the graduations on the rule and the glare from its surface are apt to distract the patient's attention or cause confusion.

11. We must be careful to define the point from which we make our measurement, and take care that we do actually measure from this point each time. Donders measured from the nodal point of the eye, while the tables usually given presuppose a measurement made from the anterior principal point of the eye, i. e., practically from the anterior surface of the cornea. I prefer to measure from the anterior focus of the eye, i. e., from a point 13 mm. in front of the cornea, because this is the point at which we place the convex glass that we use to measure the accommodative power with and to replace the latter when absent. Thus when we speak of a deficiency of accommodation of 6 D we mean one that will be compensated for by a lens of that strength placed at the anterior focus—not at the nterior principal point—of the eye. So, too, when we peak of a hyperopia of 6 D we mean one which is corrected by a convex glass of that strength placed at the anterior focus of the eye. If we shifted the compensating glass to the anterior principal point of the eye we should need one of 6.5 D to accomplish the desired result.

COMPARISON OF OUR RESULTS WITH THOSE OF DONDERS

The values that we found in the range in our cases are plotted in the accompanying diagram (Fig. 1). Each subject is denoted by a separate dot, and the same subject at different ages is denoted by two dots connected by a wavy line. In Figure 2 the broken line, AA, denotes the mean of our observations; the continuous line, BB, the similar curve that Donders constructed from his observations; CC denotes the upper, and DD the lower of the limits between which the great majority of our observations are comprised.

BB, it will be observed, differs from Donders' curve as ordinarily depicted in the text-books in two particulars. In the first place, it rises higher at the start, reaching 18 instead of 14 D. In the second place, it does not touch the base line or 0 even at the age of 70. The reason for the first difference is that Donders' curve as ordinarily drawn represents the near point when measured from the anterior principal point of the eye, while, in order to make it comparable with our curve, we had to draw it as if measurement had been made from the same point as for the latter, i. e., the anterior focus of the eye. The second point of difference arises from the fact that Donders' curve as usually drawn shows the absolute position of the near point in his patients, whether they were emmetropic or hyperopic, while, to make it comparable with ours and to show the actual range of accommodation as he found it, we had to change the curve to what it would be if his elderly hyperopic patients were rendered emmetropic by glasses. To do this we had to shift the far point in all his hyperopic cases up to the base line and shift the near point correspondingly upward.

It will be noted that our curve differs from that of Donders in three important particulars:

1. Before the age of 20 our curve falls below his. Here, owing to the comparatively small number of cases and to the difficulty of getting accurate results when the accommodation is high and the patient is young, the results must be regarded as uncertain. Yet we think that the probable error in our findings is not over one D, and that in any case Donders' results for the early ages (10 to 15) are distinctly too high.

2. From 20 to 45 our curve rises above his.

3. From 45 on it falls below his. The difference here is due to the sharp plunge that takes place between 38 and 50.[4]

Both according to our observations and those of Donders the accommodation remains nearly constant after the age of 51, diminishing not more than 0.50 D in ten years. We find a somewhat lower range than Donders did for this time of life.

Hess believes that the accommodation shown in advanced life is in part spurious, the patient being able to see distinctly within his true near point, because his pupil is very narrow and hence has the sharp defining power of a stop or stenopæic aperture. But in a num-

TABLE 1.—NUMERICAL DIFFERENCE BETWEEN DONDERS' OBSERVATIONS AND CONTROL OBSERVATIONS

Range in D, near point being measured from anterior focus of eye = 1.3 cm. in front of the cornea.

	Our Observations.				Donders' Observations.	
Age.	No. of Cases.	High.	Low.	Mean.	Mean.	No. of Cases.
10	6	16.0	11.0	14.0*	18.0	5
15	16	17.5	10.0	13.2*	15.0	8
20	17	14.0	6.5†	11.4*	11.8	7
25	15	12.0	5.5†	10.3	9.7	4
30	20	10.5	4.5†	8.5	7.8	5
35	9	8.1	6.0†	7.0	6.0	2
40	19	7.3	3.7	6.0	4.8	5
45	16	5.0	1.8†	3.8	3.7	..
50	16	2.6	0.7	1.8	2.6	..
55	4	1.6	0.8	1.3	2.0	..
60	5	1.7	0.7	1.2	1.5	..

* Approximate.
† Probably abnormal.

TABLE 2.—NUMERICAL DIFFERENCE BETWEEN DONDERS' OBSERVATIONS AND CONTROL OBSERVATIONS

Range in D, near point being measured in the ordinary way from the anterior principal point (practically from the anterior surface of the cornea).

Our Observations.		Donders' Observations.	Our Observations.		Donders' Observations.
Age.	Mean.	Mean.	Age.	Mean.	Mean.
10	11.6*	14.0	40	5.5	4.5
15	11.0*	12.0	45	3.6	3.5
20	9.9*	10.0	50	1.9	2.5
25	9.0	8.5	55	1.3	2.0
30	7.6	7.0	60	1.3	1.5
35	6.4	5.5	65	1.2	1.5

* Approximate.

3. Hess recommends Scheiner's test. We have tried this in various modifications, but none has proved satisfactory as a clinical test, that shall be applicable to all sorts of patients, intelligent and otherwise. Moreover, experimenting on myself, I find that the single line, if made fine enough and sharp enough, gives almost precisely the same results as Scheiner's test and is not subject to certain chances of error that inhere in the latter.

4. The fall in accommodation between these ages according to our observations is 4.8 D, or just double the amount found by Donders.

ber of patients that we examined between the ages of 50 and 60 the pupil was fully 3 mm. in diameter, so that Hess' explanation would not account for the range of 1 D or more that these patients showed.

The numerical differences between Donders' observations and ours is shown in Table 1.

NORMAL VARIATIONS IN THE RANGE OF ACCOMMODATION

What chiefly concerns us as clinicians is not so much the mean value of the accommodation at any given age as the limits within which the accommodation at that age must lie in order to be regarded as normal. A study of Figure 1 shows that the great majority of our cases lie between the limits indicated by the lines CC and DD in Figure 2, i. e., have a range of not more than 20 per cent. below or of 25 per cent. above the mean. The numerical values of these limits for each age are given in Table 3. An accommodation which is persistently above the upper limit or persistently below the lower must be regarded as abnormal. But it can not be so regarded on the strength of a single observation, no matter how aberrant the finding. For such a finding is usually erroneous, the error occurring because:

1. Our method of examination is faulty and, in particular, the test object is unsuitable or the illumination is defective.

2. The patient is inattentive or fails to comprehend what is required of him.

3. Through inertia, laziness or fatigue he fails to exert his full accommodative power.

Owing to these sources of error the same patient when examined at short intervals often shows wide variations —variations which, however, do not mean any real change in his accommodative power.

The usual effect of these sources of error is to make us underestimate the patient's accommodation. Provided we can be sure that the proper conditions are fulfilled, the highest measurement obtained in a series of observations represents the true accommodative power. If, however, this maximum occurs but once, and numerous other observations, made under as good conditions, show a uniformly lower range, we should regard the high finding as probably erroneous.

It is usually the first one or two observations that give the most erroneous findings. This is evidently due to the patient's unfamiliarity with the test and his failure to appreciate just what is expected of him. In any event, it is essential to multiply observations in the same case in order to eliminate error and get at the true result.

If it is thus essential to examine the same patient repeatedly when we wish to determine his individual accommodative power, it is still more essential to multiply observations when we are trying to find the normal average and the normal limits of the accommodation in general. We must examine a great many patients and examine them a great many times and always under the proper conditions and with the proper restrictions. When we do this we find that the accidental variations tend to disappear and the true maxima and minima lie closer to the mean range than we had supposed. The low values, in particular, tend to drop out. It is likely, therefore, that the true limits are not so far apart as indicated in Figure 2 and Table 3, and that a case to be really normal must be well within these limits, and especially must be well above the lower limit.

RANGE IN MYOPIA

Myopia—particularly myopia that has been corrected by glasses—is not regularly associated with a low range of accommodation. Out of thirty cases in which the myopia exceeded 3 D the accommodation was found subnormal in only two. In several cases it was strikingly high; thus:

Dorothy J., aged 18, myopia 12 to 13 D, acc. = 12 D.
B. P., aged 18, myopia 4.25 D, acc. = 14 D.
F. K. M., aged 13, myopia 7 D, acc. = 12 D.
E. C. H., aged 23, myopia 3.75 D, acc. = 14 D.
H. P. R., aged 25, myopia 5.50 D, acc. = 12 D.
A. E. F., aged 37, myopia 5 D, acc. = 8.5 D.

CONCLUSIONS

These may be stated — somewhat dogmatically — as follows:

1. To determine the accommodation we first provide the patient with the glass that fully corrects his refraction. If with this correction his near point lies beyond 40 cm. we add a convex glass of sufficient strength to bring the near point to between 30 and 40 cm. We then place the patient with his back to a window, turning him so that a good diffuse light comes over the shoulder on the side of the eye we are testing — the other eye, of course, being covered. We now put in the carrier of Prince's rule a dull white card 3 by 1.5 mm. in size, mounted on a dead black surface and having engraved on it a vertical black line, 0.2 mm.[5] broad and 3 mm. long. The rod itself we place with its proximal end one-half inch from the cornea and with its broad side vertical. We now push the carrier up to the eye, exhorting the patient to focus on the line as hard as he can. When the line blurs we withdraw it until it is distinct, and then carry it back and forth several times until we are sure we have the very nearest point at which the patient can still see it clearly. Marking this point we now read off from the scale the corresponding amount of accommodation in D. From this we subtract the value in D of any convex glass that we may have added to the patient's full correction. The remainder gives the true range. It is necessary to make the test several times, especially in young subjects, getting as many reliable observations as possible. Provided

TABLE 3.—NUMERICAL VALUES OF LIMITS FOR EACH AGE.

Normal range in D, near point being measured from the anterior focus of the eye (—1.3 cm. in front of the cornea).

Age.	Mean.	Minimum.	Maximum.	Age.	Mean.	Minimum.	Maximum.
10	14.0*	11.2	17.5	36	6.8	5.5	8.5
11	13.9*	11.1	17.4	37	6.7	5.4	8.4
12	13.8*	11.0	17.2	38	6.6	5.3	8.0
13	13.6*	10.9	17.0	39	6.3	5.0	7.9
14	13.4*	10.7	16.7	40	6.0	4.8	7.5
15	13.2*	10.5	16.5	41	5.6	4.5	7.0
16	12.9*	10.3	16.1	42	5.1	4.1	6.4
17	12.6*	10.1	15.7	43	4.7	3.8	5.9
18	12.3*	9.8	15.4	44	4.2	3.4	5.3
19	11.9*	9.5	14.9	45	3.8	3.0	4.7
20	11.5*	9.1	14.2	46	3.5	2.8	4.4
21	11.2	9.0	14.0	47	3.3	2.6	4.1
22	11.0	8.8	13.7	48	2.8	2.2	3.5
23	10.9	8.7	13.6	49	2.3	1.8	2.9
24	10.6	8.5	13.1	50	1.8	1.4	2.3
25	10.3	8.2	12.9	51	1.6	1.3	2.0
26	9.9	7.9	12.4	52	1.4	1.1	1.8
27	9.6	7.7	12.0	53	1.4	1.1	1.8
28	9.2	7.4	11.5	54	1.3	0.9	1.6
29	8.8	7.0	11.0	55	1.3	0.9	1.6
30	8.5	6.8	10.6	56	1.3	0.9	1.6
31	8.1	6.5	10.1	57	1.3	0.9	1.6
32	7.9	6.3	9.9	58	1.2	0.9	1.5
33	7.7	6.2	9.6	59	1.2	0.9	1.5
34	7.4	5.9	9.2	60	1.2	0.9	1.5
35	7.0	5.6	8.8	61	1.2	0.9	1.5

* Approximate

5. If the patient's vision is not sharp, or if his near point is remote, 0.4 mm.

we can be sure that the patient is intelligent and accurate in his observations. the maximum found in a series of tests represents the real range.

2. If the determination is made in this way the range should be between the limits shown in Table 3.

3. An accommodation which is persistently above or persistently below these limits must be regarded as abnormal—provided always that the proper conditions of examination above noted have been fulfilled.

4. We are not, however, justified in pronouncing the accommodation abnormal on the strength of any single observation.

5. The results above given differ from those of Donders in the manner shown in Figure 2 and in Tables 1 and 2, and particularly in the following points: (a) Before the age of 20 the range is lower than that found by Donders; (b) from 20 to 45 it is higher; (c) from 45 on it is lower.

6. We believe that our results are more reliable than those of Donders because of the following facts:

A. They were obtained from three times as many subjects. Over 500 are shown in the chart, and in making up the statistics 600 have been utilized.

B. Our patients were rendered absolutely emmetropic by glasses, and no subject was utilized in whom the total refraction had not been carefully determined; while it is probable that many of Donders' cases, especially between the ages of 20 and 45, had an uncorrected latent hyperopia, which would make his estimate of the accommodation too low by 1 or 2 D. Hence the fact that our curve rises higher than his during this period.

C. The test object that we use for determining the near point (the fine hair-line and the rule) was better calculated to give accurate results than the tape and wire optometer used by Donders.

7. The idea, still somewhat current, that the accommodation in advanced life becomes zero is in accord neither with Donders' findings nor with ours. A true range of 1 D or over exists up to and beyond the age of 60.

8. Myopes have as good a range of accommodation as emmetropes.

49 East Thirtieth Street.

[THE DISCUSSION ON THIS PAPER WILL APPEAR IN A LATER ISSUE OF THE JOURNAL.]

Clinical Notes

ACUTE DILATATION OF STOMACH DURING ANESTHESIA

REPORT OF A CASE

EDWARD L. MOORHEAD, A.M., M.D.
CHICAGO

The following case is reported on account of its rarity:

Operation.—Mrs. Q., aged 22; perineorrhaphy; double salpingo-oöphorectomy; appendicectomy; ether anesthesia, preceded by morphin sulphate grs. 1/4, atropin sulphate grs. 1/120.

Complication.—After repair of the perineum the patient's position was changed to the horizontal, and my assistant was about to give the abdomen its final preparation, when there suddenly appeared a large swelling extending to midway between the umbilicus and pubes, the convex border of the swelling pointing towards the pubes. There was no perceptible change in the pulse or respiration. The abdomen was opened between the lower border of the swelling and the pubes and the immensely dilated stomach presented. A careful examination failed to elicit the cause. The stomach and intestines were protected by gauze sponges and the operation completed. A stomach-tube was introduced and the swelling gradually disappeared. There was no odor to the gas which passed from the tube, and on washing out the stomach the water came away clear.

Postoperative History.—When the patient was put to bed the pulse was 108 and temperature 99. She reacted nicely and did not vomit that day. The following day gas passed from the bowel and the patient had several slight vomiting spells. About 11 p. m. the stomach again began to dilate, and at 12 p. m. the stomach-tube was again introduced. The morning of the second day the patient's condition was not so good, the pulse being 120 and temperature 99. Normal salt solution was now given per rectum by the drop method and strychnin sulphate, grs. 1/30 every six hours, was ordered. At 10 a. m. on the second day it was necessary to resort to the stomach tube as dilatation again recurred. Eserin salicylate, gr. 1/50, was given at 11 a. m. and at 3 p. m. hypodermatically. On the morning of the third day the bowels moved several times, and from that time on the patient made an uneventful recovery. During the first few days following operation nothing was given by mouth. The patient left the hospital at the end of three weeks and there has been no recurrence of the trouble.

The case is of interest on account of the dilatation coming on at the time it did, without any appreciable cause. There had been no traumatism to the abdominal contents. The work on the perineum was done in a very short time. There was nothing in the stomach (food, etc.) to give rise to the production of gas. Whether the change in position having been a factor in its production is a question.

103 State Street.

A CASE OF SYCOSIS, PROBABLY DUE TO THE GONOCOCCUS

EDWARD F. WRIGHT, M.D.
ROYSE CITY, TEXAS

Mr. W., aged 35, weight 165, consulted me Feb. 20, 1909, for pustular folliculitis involving the bearded part of the face, which had existed for two years. The picture was that of an ordinary sycosis. On examining hairs extracted from the infected areas I found in their sheaths, not common pus organism, but great numbers of intercellular and intracellular biscuit-shaped diplococci which were morphologically identical with gonococci. In an examination of the literature I found in Pusey's work a reference to a report by Cronquist of a case of gonococcus folliculitis of the hairy region of the abdomen of a woman who had gonorrhea. Further observations tended to confirm my opinion that the case was one of gonococcus folliculitis. The organisms in my case were rather smaller than the cocci found in the acute stages of gonorrhea, but did not differ from the gonococci found in the prostate in cases of long standing. I found further from my records that the barber had been under treatment for gonorrhea at the time of this patient's infection.

Therapeutics

INCONTINENCE OF URINE IN CHILDREN

This is a frequent and a very troublesome condition, and logically can not be properly treated unless the cause has been determined. Yet how frequently physicians administer drugs for this condition without any investigation into its etiology!

Obviously, the first thing to determine, in a patient presented to the physician with a story of incontinence of urine (which is most generally incontinence only at night), is the condition of the urine. An examination

of the urine will rule in, or out, such causes as nephritis, diabetes, cystitis, and often calculi. An abnormal alkalinity of the urine or an increased acidity may be a factor in the irritation which causes the bladder to contract without due notice. If much mucus and blood are found, with a history of pain referred to the end of the penis in the boy, or to the urethra in the girl, and especially if there is chronic cystitis, such bladder investigations should be made as to prove the presence or absence of calculi.

The rectum, and the vagina in the female, should be carefully investigated for the presence of pin-worms, and if these are present it is not infrequent that in girls they may have invaded the urethra and bladder.

A frequent cause of incontinence is an adherent prepuce, both to the glans in the male and to the clitoris in the female. These conditions can be readily determined. In the boy, if the prepuce is long though not adherent, concretions and deposits of sebaceous material form, which may produce reflex irritation sufficient to cause incontinence.

An actual mild cystitis may be present which may cause the incontinence in the child, while in the adult it would cause only frequent voluntary urination.

Constipation, and feces remaining long in the rectum and sigmoid flexure, may cause pressure on the bladder in children sufficient to render it unable to hold the normal amount of urine.

The abdomen should be carefully examined to exclude any growth that would cause bladder pressure.

A bladder may be congenitally small, or, perhaps more frequently, it becomes contracted, because the urine is so frequently passed that it does not grow or has never grown to its normal size; in other words, the bladder may be contracted.

Nervous conditions, such as chorea, may cause incontinence; and, of course, there is often incontinence during an epileptic attack. Consequently, although epilepsy is not known to be present, in nocturnal incontinence when a tangible cause can not be determined the child should be carefully watched for the possible occurrence of epileptic attacks in the night. It is well known that epileptic attacks may occur in the night in patients in whom epilepsy has never been suspected, and patients who have epilepsy probably frequently have attacks in the night.

The cause may be the more intangible, viz.: the urine may be irritating to the neck of the bladder, or there may be an insufficiency of the bladder sphincter.

Lastly, and by no means infrequently, nocturnal incontinence is because a young child with its bladder of normal size for its age is put to bed at an early hour in the evening and expected to go till morning without urination, which the child's parents could not do. In other words, a child that goes to bed at 6 or 7 o'clock to sleep until 7 o'clock in the morning should be awakened about 11 o'clock to evacuate the bladder.

The general rules for the treatment of incontinence are limitation of the liquids taken during the last hours of the child's day; a bland diet that does not cause indigestion which will cause irritants to reach the bladder in the urine; proper and perfect cleanliness of the genitals; sleeping on a straight, smooth bed that does not sink and bury the child; warm, proper coverings, but not hot and suffocating wrappings; fresh, clean air in the bedroom, and the awakening of the child the last thing before the parents go to bed.

If any of the tangible causes above described have been discovered, the proper treatment for the individual condition, if the condition is curable, will stop the incontinence.

If the urine is found to be alkaline, small doses, proper for the age of the child, of hexamethylenamin (urotropin), or possibly small doses of phenyl salicylate (salol), will render the urine acid and perhaps cure the condition. If, on the other hand, the urine is too acid, the administration of potassium citrate in proper dose, three or four times in twenty-four hours, will reduce the acidity or render the urine alkaline, and the condition will thus be improved.

If there is found to be an adherent prepuce, in the male circumcision may be necessary, or the mere freeing of the adhesion may be all that is needed. In the female, after freeing the prepuce from the clitoris, which may be often done with the fingers alone, the incontinence of urine may cease immediately. It is a fact, however, that incontinence of urine, like any other result of nervous irritation, may be prolonged by the "habit spasm" after the cause has been removed, so that generally a cure of the incontinence can not be expected immediately to follow the removal of the cause.

If there is inflammation of the bladder or even an irritable bladder, a milk and cereal diet, rest in bed, hot water baths and alkaline medication is the treatment.

If it has been decided by injecting boric acid or other bland solution, into the bladder, that it is abnormally small, its increase in size should be encouraged by teaching the child to retain its urine, if possible, more hours while it is awake, and the bladder may thus be educated and developed to retain the night urine longer.

An irritability of the posterior urethra and neck of the bladder is sometimes greatly diminished and incontinence lessened by the administration of atropin. For such purposes the dose should be fairly large, of course depending on the age of the child, and should generally be administered at bedtime, although it may be needed once or twice during the day. If atropin is to do any good, it must be given in sufficient dose almost to cause symptoms of its primary physiologic action, viz., the patient's tolerance should be ascertained. As soon as the atropin causes flushing of the face and drying of the throat it should be stopped for twenty-four hours, and then the dose given should be less than that which caused the symptoms. While atropin is a stimulant to smooth muscle fiber and perhaps tones up the bladder sphincter, it also soothes and dulls the peripheral nerves of the bladder and urethra, perhaps even more than other peripheral nerves, as it is largely excreted in the urine.

If the cause of the incontinence is decided to be an insufficient bladder sphincter, ergot is sometimes excellent treatment. Ergot is a stimulant to smooth muscle fiber and a sedative to the central nervous system, and may thus inhibit bladder reflexes. Sometimes electricity, used locally, has seemed of value in incontinence from such cause, but many more times it fails.

Various hydrotherapeutic measures are sometimes of value. Often, however, when there is this muscular defect, the bed wetting will be continued until puberty, when, by the general development of the genitals, the local muscles also develop and the condition is cured.

Bromids have been given to stop the local irritability and the reflexes which cause the bladder to contract, but they soon produce general debility, and, unless epilepsy is present, are certainly inadvisable.

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[For other information see second page following reading matter]

SATURDAY, JUNE 19, 1909

To give our readers a full report of the legislative proceedings of the annual session, we omit some of our regular departments and curtail the space usually given to others.

THE CAUSE OF EPIDEMIC POLIOMYELITIS

The occurrence during recent years in various places of epidemic poliomyelitis or epidemic infantile paralysis has given impetus to active study by modern means of various phases of this disease. The general features of a number of epidemics have been described, that in this country in 1907 involving about 2,000 cases by Starr[1]; that in Sweden, in which more than 1,000 cases occurred, was made the subject of an elaborate monographic study by Wickman,[2] while the epidemic or series of outbreaks of poliomyelitis in Norway furnished material for an exhaustive investigation of the pathologic anatomy by Harbitz and Scheel.[3]

According to the latter observers, the principal point of attack is the gray matter of the spinal cord, the poliomyelitis being associated with inflammatory infiltrations in the spinal membranes, and also with more or less strongly marked changes in the medulla and brain, the process being in reality more diffuse than at first thought.

Naturally, attention was early directed to the discovery of the cause of the disease, but, outside of the finding of micrococci in the cerebrospinal fluid in some cases of poliomyelitis, no final results have been reached. It is noted by several observers that during the course of epidemics instances of paralytic diseases would occur among horses, dogs and other animals, but it is wholly problematic whether such instances had any relation to the human disease.

Recently Landsteiner and Popper[4] claim that they have transmitted the disease to monkeys. They seem to be the first to have attempted to communicate the disease to animals by direct inoculation of supposedly infectious materials from patients, using in their experiments parts of the spinal cord of a boy who died of poliomyelitis, the inoculations of this material emulsified in salt solution being made into the peritoneal cavity of monkeys, rabbits, guinea-pigs and mice. This material was sterile so far as indicated by the results of the microscopic examination and of a large number of culture experiments in blood-broth and serum-broth. Only the two monkeys showed any effects of the inoculations, one (*Cynocephalus hamadryas*) becoming severely ill on the sixth day and dying two days later, the other (*Macacus rhesus*) becoming completely paralytic in the posterior extremities about seventeen days after the inoculation; two days later it was killed. Both these animals showed the lesions typical of poliomyelitis only, other organs than the spinal cord being free from changes. Efforts to communicate the disease to other monkeys with material from the rhesus monkey failed. Landsteiner and Popper conclude that poliomyelitis is communicable to monkeys and suggest that, inasmuch as the material they used in their inoculations seemed to be free from bacteria, the virus of poliomyelitis probably is not demonstrable by the methods usually employed in the study of bacteria and that it may concern a so-called invisible virus or a virus of protozoon nature.

Evidently further experiments are needed, but it seems reasonable to hope, on the basis of the results outlined in the foregoing, that a method has been found by the help of which our knowledge of the cause of poliomyelitis may be advanced.

1. The Journal A. M. A., July 11, 1908, li, 112.
2. Berlin, 1907.
3. The Journal A. M. A., Oct. 26, 1907; Norsk Mag. f. Lægevidensk., October, 1907; abstracted in The Journal, Dec. 7, 1907, p. 1963.
4. Ztschr. f. Immunitätsf. u. Exp. Therap., 1909, ii, 377.

TUBERCULOSIS A BACTEREMIA

That tubercle bacilli occur in circulating blood under certain conditions has long been known. In 1884 Weichselbaum found them postmortem, especially in the coagulated blood in the heart. Several observers have cultivated the organism directly from the blood in pure growth in acute cases, and the well-known lesions of miliary tuberculosis, diffusely scattered everywhere in the system, is explained as an infection of hematogenous origin due generally to vascular lesions. Generalized distribution of miliary lesions, however, is less common than local lesions in lungs, bones, lymph glands, etc., with little involvement or change in other parts of the body, and the prevailing idea in such instances has been that the bacilli are limited to such foci where they remain or slowly invade the neighboring tissues by direct extension or through the lymphatic vessels. We know such foci occasionally break into blood vessels and especially into the thoracic duct and a shower of tubercle bacilli occurs into the organs, with miliary tuberculosis as a result. At such times the blood necessarily must contain the bacilli, but the conception has been that they do not multiply or remain long in the blood, but are deposited in various organs, especially in the lymphatic glands, lungs, liver, etc.

Recent observations by Rosenberger[1] are of unusual interest in this connection and deserve critical comment. After finding tubercle bacilli in the thoracic duct in 72.7 per cent. of patients dead of tuberculosis and also

1. Amer. Jour. Med. Sci., February, 1909, p. 267.

commonly in the feces, he was led to think that all forms of tuberculosis may be bacteremias, and attempted to demonstrate this by a direct blood examination. The technic for detecting the tubercle bacilli consists in adding 5 c.c. of blood drawn from a vein to an equal quantity of 2 per cent. sodium citrate in normal salt solution. This is well shaken and allowed to sediment in the refrigerator for 24 hours. Smears are made of the sediment, and after drying the film by heat the hemoglobin is removed by water. The preparation is then stained in the ordinary way for tubercle bacilli. In 125 cases examined in various stages of the disease, bacilli in the blood smears were found in all. In some the bacilli were not numerous; in others, especially the acute miliary tuberculosis, clumps of 30 or 40 bacilli were not unusual. Phagocytosis of the circulating bacilli was occasionally observed. Of especial interest is the fact that the bacilli were found in incipient cases, fibroid tuberculosis and laryngeal tuberculosis, as well as in advanced and miliary tuberculosis. Furthermore, they were encountered in cases even before the appearance of the bacilli in the sputum, and hence the method may be valuable for early diagnosis. In this respect the method should be of value also in the diagnosis of suspected miliary tuberculosis, in which cases tuberculin tests are of little or no value.

In confirmation of the work of Rosenberger may be mentioned the results of Forsyth,[2] who found the bacilli in the blood in all of twelve cases of pulmonary tuberculosis examined, in ten of which physical signs were present in the lungs and tubercle bacilli found in the sputum. Six of these were patients who showed decided and progressive improvement and at the time of the examination had no temperature, showing that the positive findings are not limited to acute advancing tuberculosis.

The morphology of these bacilli appears to be identical with typical tubercle bacilli and, as Forsyth says, if they were seen in sputum no doubt would be entertained as to their identity. The question may be raised as to whether or not they are living and virulent bacilli. In some cases, inoculations into animals gave positive results, but this has not been proved in all cases and further experimental work along this line is needed.

These facts appear to place tuberculosis in the group of bacteremias, a conception which has not generally prevailed in regard to any of the forms of the disease, except possibly acute miliary tuberculosis. This may perhaps alter some of our ideas concerning the distribution of lesions of tuberculosis and will raise certain other questions of interest. If tuberculosis is commonly a bacteremia even in the early stages, it does not seem reasonable to attribute as much importance to lymphatic distribution as is commonly given to it. On the other hand, the bacilli being so numerous and constant in the blood, why do we not more frequently have a miliary tuberculosis if according to our present conception this condition depends on flooding the circulation with bacilli?

Evidently the miliary distribution must depend on factors other than the mere presence of bacilli in the circulation, among which may be mentioned virulence of the bacilli, resistance of the tissues and possibly the presence of some clumps or masses of tubercle bacilli which, as emboli, may cause lesions, whereas single bacilli in the circulation might not localize.

As Forsyth points out, the relation these facts bear to the use of tuberculin and to the opsonic theory are interesting and may alter some of our present conceptions regarding inoculation.

2. British Med. Jour., April 24, 1909, p. 1001; abstracted in THE JOURNAL, May 22, 1909, p. 1722.

THE PRESIDENT-ELECT

The Association made a wise choice at the Atlantic City session in selecting as president-elect for the coming year a scientist whose name and work are known throughout the scientific world, a pathologist whose study and research work have placed him in the front rank of his specialty, a teacher of unusual ability, and a man of charming personality, Dr. William Henry Welch of Johns Hopkins University, Baltimore.

He was born in Norfolk, Conn., April 8, 1850, the son of Dr. William Wickham Welch and Emeline Collin. His university education was received at Yale, from which he was graduated in 1870 with the degree of A.B., and his medical studies were undertaken at the College of Physicians and Surgeons, New York City, from which he was graduated in the class of 1875. He took postgraduate work in Strassburg, Leipzig, Breslau, and Berlin from 1876 to 1878 and in 1884 and 1885.

Soon after his return from his first postgraduate trip abroad, he was made professor of pathologic anatomy and general pathology in Bellevue Hospital Medical College, New York City, and held this position from 1879 to 1884, when he became professor of pathology in Johns Hopkins University, Baltimore, a position which he still holds; from 1893 to 1898 he was also the dean of the medical faculty of the university. He has been pathologist of Johns Hopkins Hospital since 1889; president of the Maryland State Board of Health since 1898; president of the board of directors of the Rockefeller Institute for Medical Research since 1901, and a trustee of the Carnegie Institute since 1906. He served as president of the Congress of American Physicians and Surgeons in 1897, of the American Association for the Advancement of Science in 1906 and 1907, of the Association of American Physicians in 1901, and of the Medical and Chirurgical Faculty of Maryland in 1891-1892, and was Huxley lecturer in the Charing Cross Medical School, London, in 1902.

Dr. Welch delivered the Oration on State Medicine before the American Medical Association in 1889, his subject being "Considerations Concerning Some External Sources of Infection in Their Bearing on Preventive

Medicine." For the last six years he has been a member of the Board of Trustees of the Association.

In 1894 he was given the honorary degree of M.D. by the University of Pennsylvania, and had conferred on him the degree of LL.D. by the Western Reserve University, Cleveland, in the same year. He was given the degree of LL.D. by Yale University in 1896, by Harvard University in 1900, by the University of Toronto in 1903, by Columbia University in 1904, and by Jefferson Medical College, Philadelphia, in 1907.

Dr. Welch has written numerous articles on pathologic and bacteriologic subjects, and also general addresses. Among his more notable literary works are his book on the "General Pathology of Fever," which has been a standard text-book since 1888; "Biology of Bacteria," and "Infection and Immunity," which were published in 1894, and "Bacteriology of Surgical Infections," which appeared in 1895.

The Association is to be congratulated on its choice for president, for it has honored itself in electing Dr. Welch to the position.

Medical News

COLORADO

Graduating Exercises.—The annual commencement exercises of the Denver and Gross College of Medicine, Medical Department of the University of Denver, were held May 13, and a class of 23 was graduated. Diplomas were awarded by Chancellor Henry A. Burhtel, and the doctorate address was delivered by Rabbi William S. Friedman.

Alumni Election.—The Alumni Association of the Denver and Gross College of Medicine, at its annual meeting, May 15, elected the following officers: Honorary president, Dr. Arnold S. Taussig; president, Dr. Carl G. Parsons; vice-presidents, Drs. H. S. Shafer and Miller E. Preston; secretary, Dr. Robert L. Charles; treasurer, Dr. Adam J. Simpson, and historian, Dr. Ida V. Beers, all of Denver.

Deaths for First Quarter of Year.—During the first three months of the year, there were 2,948 deaths reported in the state, equivalent to an annual death rate of 18.80 per 1,000. Of the decedents, 1,774 were male; 1,074, female; 2,861 white and 87 colored. Among the principal causes of death were tuberculosis, 521; pneumonia, 472; violence, 288; nervous diseases, 217; heart diseases, 209; nephritis, 158, and cancer, 109. Scarlet fever caused 51 deaths; whooping cough, 46; influenza, 44; diphtheria, 29; typhoid fever, 24; and measles, 9.

Hospital Notes.—The new Red Cross hospital, established at Salida by Dr. Frank N. Cochems, has just been completed. The building contains accommodation for 65 patients.——Work on the new hospital for the treatment of contagious diseases, Denver, is well under way. It is located back of the county hospital, between the Steele Hospital and the old diphtheria hospital, and is connected with these buildings. In the center of the group of buildings will be an administration building, and on either side one-story wings, built at an angle that will insure sunlight to each room. Each wing will contain one ward and two or three rooms for private patients.

CONNECTICUT

Communicable Diseases.—During April, there were reported to the State Board of Health more than 804 cases of measles in 63 towns; 183 cases of scarlet fever in 43 towns; 115 cases of diphtheria in 34 towns; more than 125 cases of whooping cough in 22 towns; 47 cases of typhoid in 16 towns, and 118 cases of tuberculosis in 33 towns.

April Deaths.—There were 1,493 deaths reported during April, or 79 less than in March, 167 more than in April, 1908, and 117 more than the average April number of deaths for the five years preceding. The death rate was equivalent to an annual mortality of 17.8 per 1,000. Of the deaths reported, 16.9 per cent. were due to infectious diseases.

Society Meetings.—At the annual meeting of the Northern Connecticut Medical Society, which includes the towns of Windsor Locks, Enfield, Thompsonville and Suffield, the following officers were elected: President, Dr. Joseph A. Coogan, Windsor Locks; vice-presidents, Drs. Thomas G. Alcorn, Thompsonville, Howard O. Allen, Broadbrook, A. Proctor Sherwin, Suffield, Simon W. Houghton, Hazardville, and Alonzo L. Hurd, Somers, and secretary-treasurer, Dr. Richard A. Outerson, Windsor Locks.——The annual meeting of the Norwich Medical Society was held May 17. Dr. Newton P. Smith was elected president, Dr. Patrick H. Harriman, vice-president, and Dr. Leone F. LaPierre, secretary-treasurer.

Personal.—Dr. William H. Burr, Suffield, has been appointed resident physician at the Miners' State Hospital, Fountain Springs, Pa.——Dr. Thos. F. Kane has been elected president of the board of health of Hartford; Dr. Edward K. Root, a health commissioner; Dr. Charles P. Botsford, superintendent; Dr. Arthur J. Wolff, bacteriologist, and Drs. Alfred M. Rowley, Robert S. Starr and James F. Rooney have been made medical inspectors.——Dr. Edward K. Root has been made a member of the board of medical visitors of the Hartford Retreat. ——Dr. Frank A. J. Benedict, Seymour, has been appointed medical examiner for Oxford, vice Dr. Lewis Barnes, deceased. ——Dr. James S. Maher, New Haven, has been re-elected president of the board of health.

GEORGIA

Tuberculosis Camp Opened.—Richmond County Tuberculosis Hospital, Augusta, was opened to receive patients, May 17.

Personal.—Dr. Willis F. Westmoreland, Atlanta, has been appointed a member of the commission to investigate the charges against the Georgia State Sanatorium, Milledgeville.——Dr. Ernest A. von Boeckh is reported to be seriously ill at his home in Atlanta.——Dr. Frank L. Eskridge, city physician for the first ward, Atlanta, has resigned, to take effect June 15.——Drs. William C. Pumpelly, Weenes R. Winchester, William F. Carroll and Leighton J. Brown, all of Macon, and Dr. James W. Cowart, Walden, have been appointed members of the Bibb County board of health.——Dr. Isham H. Goss, Athens, has been elected president of the State Board of Medical Examiners.

ILLINOIS

Bequest.—By the will of the late S. E. King, Ottawa, $40,000 is devised for an annex for Ryburn Hospital.

Personal.—Dr. Robert F. Hayes, Freeport, who fell and fractured his leg several months ago, is now reported to be convalescent.——Dr. George W. Mitchell, first assistant physician at the Peoria State Hospital, Bartonville, has returned from Europe.

Hospital Dedicated.—The dedicatory exercises of St. Margaret's Hospital, Spring Valley, were held June 3. The services were conducted by Bishop O'Reilly of Peoria. The hospital has cost $30,000, and is in charge of the Daughters of the Mary of the Presentation.

State Hospitals to Change Name.—On July 1, the state hospital for the insane Bartonville, which was first known as the Illinois Hospital for the Incurable Insane, and then as the Illinois General Hospital for the Insane, will be known as the Peoria State Hospital. The other state hospitals for the insane will hereafter be known as the Jacksonville State Hospital, Watertown State Hospital, Kankakee State Hospital and Elgin State Hospital, respectively.

Hospital Notes.—The contract for the hospital for the Naval Training Station, North Chicago, has been awarded to the Noel Construction Company. The building is to cost about $250,000.——Emanuel Hilb has offered to contribute $15,000 to a fund to secure a hospital for Rochelle provided a like amount is subscribed by the citizens.——June 5 was "Hospital Tag Day" for the new hospital at De Kalb.——The Galesburg Hospital Association has let the contract for the erection of a wing and annex for $34,000.

Chicago

Money for Charity.—By the will of the late Henry C. Durand, $10,000 is bequeathed to the Presbyterian Hospital.

Commencement Exercises.—At the annual commencement exercises of the Northwestern University Medical School, June 9, a class of 170 was graduated. At the alumni banquet, tendered by the faculty, 600 members were present.

Changes in Hospitals.—Plans are under consideration for a six-story addition to Wesley Hospital to cost $150,000.——Sixty-six hospitals and sanitaria of Chicago have complied with the new ordinance under which hospitals are licensed.

Need of Scarlet Fever Hospital.—Dr. Hyman Cohen of the Department of Health calls attention to the need of a scarlet fever hospital. He states that there are 500 cases of scarlet fever in the city at present, and that quarantining of houses and apartments is not a sufficient step against the spread of the disease.

Personal.—Dr. Filips Kreissl has been appointed attending surgeon to the genitourinary department of the Columbus Hospital.——Dr. Oscar C. Willhite, superintendent of the Cook County Institutions, Dunning, has been selected as delegate to the State Conference on Charities.——Dr. John T. Binkley has left Chicago for Europe.

Hospital Day.—June 27 and 28 have been tentatively selected as "Hospital Days," which will be devoted to raising funds for various denominational hospitals. Contributions will be taken up on the streets and in churches for this good object. The organization is composed of club women and representatives of about 25 denominational hospitals.

Fraternity Banquet.—At the seventieth annual banquet of the Alpha Omega Alpha Fraternity at the Great Northern Hotel, about fifty members were present. Dr. John M. Dodson was toastmaster. The principal address of the evening was made by Dr. William E. Quine, and was a tribute to the life of Dr. Nicholas Senn, "who did more for humanity and the medical profession than all the other physicians in this great city combined."

To Reduce Infant Mortality.—A campaign has been inaugurated under the supervision of the health department to safeguard infant lives in Chicago during this summer. The milk supply is to receive first attention, and food contamination is to be considered. Nurses are to be provided for children who are seriously ill; medical attention is to be urged for the ailing; mothers will be instructed concerning proper clothing, care and food of children; day nurseries are to be established, and tent hospitals for babies will be provided in the eighth, sixteenth, seventeenth, nineteenth and twenty-ninth wards.

Alumni Elections.—The class of 1899, Rush Medical College, at its tenth annual meeting and dinner, June 2, elected the following officers: President, Dr. Harry C. King, Fort Smith, Ark.; vice-president, Dr. Stephen E. Gavin, Fond du Lac, Wis.; secretary-treasurer, Dr. John B. Ellis, Chicago, and historian, Dr. Benjamin H. Breakstone, Chicago.——The annual alumni meeting of the Alumnæ Association of the Woman's Medical School of the Northwestern University was held June 7, and the following officers were elected: President, Dr. Eliza H. Root, Chicago; vice-presidents, Drs. Annette S. Mack, Chicago, and Harriet E. Garrison, Dixon; secretary, Dr. Anna Ross Lapham, Chicago; treasurer, Dr. Mary C. Hollister, Chicago; historian, Dr. Anna White Sage, Chicago; and trustees, Drs. Louise Acres, Rachel Hickey Carr and Rose Willard, Chicago.——The College of Physicians and Surgeons' Alumni Association, at its annual meeting, June 4, elected the following officers: President, Dr. Charles E. Humiston; vice-presidents, Drs. Calvin W. Harrison and Geoffrey J. Fleming; secretary, Dr. Philip H. Holmes; treasurer, Dr. Clyde D. Pence; necrologist, Dr. Louis J. Mitchell, and member of the executive committee, Dr. Bernard Fantus.

INDIANA

Dispensaries Consolidated.—Plans for consolidating the Indianapolis City Dispensary with the Bobbs Free Dispensary have been completed. They include the opening of a downtown emergency hospital at the State College.

District Society Meetings.—At the annual meeting of the Second District Medical Society, held in Bloomington, May 12, Dr. Henry W. Shirley, Shoals, was elected president; Dr. Thomas N. Braxton, Loogootee, vice-president, and Dr. Thomas A. Hays, Burns City, secretary. The next annual meeting will be held at Trinity Springs.

Hospital Notes.—The Indiana Branch of the National Red Cross Society proposes to build open-air movable cottages near Evansville under the auspices of the Vanderburgh County Antituberculosis Association. Six cottages will be built as soon as a location can be secured. The Evansville association has promised to take charge of the colony, and has pledged itself to raise the necessary funds.——The Southeastern Hospital Commission has let a contract for four additional cottages to accommodate 225 patients on the hospital grounds near Columbus for $163,000.

KENTUCKY

Cornerstone Laid.—The cornerstone of the Children's Free Hospital, Louisville, was laid May 15, with impressive ceremonies.

Baptist Sanitarium in Louisville.—The Kentucky Baptist Association has bought for $44,000 property in Louisville known as the University College and Hospital, on Chestnut street, between Eighth and Ninth, and will spend $100,000 or more in the establishment and equipment of a sanitarium.

Sanitary Investigation.—Mrs. Caroline Bartlett Crane, Kalamazoo, Mich., is making a tour of the principal cities in the state on invitation of the State Board of Health, investigating from a sanitary standpoint. She has spent a week in Louisville investigating slaughter houses, dairies, milk depots, schools and tenements. As a result of her investigation and of sensational charges said to have been made in her address in Harrodsburg, Dr. W. Horace Witherspoon is said to have filed suit in the Mercer Circuit Court against Mrs. Crane for $1,995.

Milk Dispensary Opened.—The first milk dispensary of the Babies' Milk Fund Association was opened at Neighborhood House, Louisville, May 17. The object of the association is to provide pure, clean, modified milk for the babies of the poor at a minimum cost, and without expense where applicants are unable to pay. The cost is about 40 per cent. of the total cost of the milk, and the work is supported by voluntary contributions of the public. The association also has an educational department. The association nurse visits the homes of the children and gives practical instruction to mothers in regard to the hygiene of infants. Milk is furnished in individual feeding bottles for a period of twenty-four hours.

LOUISIANA

Ex-Internes Meet.—At the annual meeting of the Charity Hospital Alumni Association, New Orleans, the following officers were elected: President, Dr. Charles N. Chavigny, New Orleans; vice-presidents, Drs. Allen C. Eustis, Abbeville, and W. E. Sistrunk, Lake Charles; secretary, Dr. Lucien H. Landry, New Orleans, and treasurer, Dr. Philip W. Bohne, New Orleans.

Medical Society Organized.—The physicians of East Feliciana parish met in Clinton, May 20, to reorganize the parish medical society, and elected the following officers: President, Dr. Emmett L. Irwin, Clinton; vice-president, Dr. Albert J. Roberts, Olive Branch, and secretary, Dr. Robert P. Jones, Clinton.——At the annual meeting of Plaquemines Parish Medical Society, at Pointe a la Hache, Dr. Charles Y. Seagle, Belair, was elected president; Dr. Hewitt L. Ballowe, Burns, vice-president, and Dr. Valery O. Schayot, Pointe a la Hache, secretary-treasurer (re-elected).

MARYLAND

Alumni Election.—At the annual meeting of the Medical Alumni Association of the University of Maryland, held May 31, it was decided not to disband and join the general alumni association. The following officers were elected: President, Dr. William H. Pearce, Baltimore; vice-presidents, Drs. Guy Steele, Cambridge, and Joseph T. Smith and Armenius C. Pole, Baltimore; recording secretary, Dr. Charles E. Sadtler, Baltimore; corresponding secretary, Dr. John Houff, Baltimore, and treasurer, Dr. John I. Pennington, Baltimore.

Baltimore

Cartright Prize Awarded.—Dr. S. O. Mast has been awarded the Cartright prize of $500 for his thesis on "The Reactions of Lower Organisms to Light."

Must Raise Much Money.—The Johns Hopkins University trustees are about to enter on a vigorous campaign to raise the $750,000 necessary to avail themselves of the $250,000 offered by the General Education Board. The university is allowed eighteen months to raise the balance required.

Convicted Unlicensed Practitioner Appeals.—Robert H. Darrah, said to have been convicted on March 17 of practicing medicine without a license, has been sentenced to imprisonment in jail for thirty days, and a fine of $32.25. An appeal was taken and he was released on a bond of $1,000. The state's attorney stated that Darrah had been a persistent violator of the law for two years, while the defendant alleges that he was the pupil of a practicing physician.

MICHIGAN

Women Physicians Meet.—At the annual meeting of Blackwell Medical Society, held in Detroit May 19, Dr. Jeanne C. Solis, Ann Arbor, was elected president; Dr. Mary G. Haskins, Detroit, vice-president; Dr. Anna O'Dell, Detroit, secretary-treasurer, and Drs. Lucy J. Utter and Grace M. Clarke, Detroit, councilors.

Dr. Robert Hetle, Library
U. S. Medical College 29/1,1

Alumni Election.—At the annual dinner and meeting of the Detroit College of Medicine Alumni Association, held May 27, the following officers were elected: President, Dr. Richard E. Mercer, Detroit; vice-president, Dr. Ellsworth Mills, Holly; financial secretary, Dr. Frederick Buesser, Detroit, and historian, Dr. Fred W. Robinson, Sturgis.

Against Tuberculosis.—The Bay County Association for the Prevention and Relief of Tuberculosis was organized in Bay City, May 20. Dr. John McLurg was elected first vice-president; Dr. Frank E. Ruggles, secretary; and Dr. John W. Hauxhurst a member of the general committee.——Clinton County Association for the Study and Prevention of Tuberculosis was organized in St. Johns, May 21. Dr. Walter A. Scott was elected president and Dr. Frank C. Dunn, secretary.

MINNESOTA

New Building for State Sanatorium.—The legislature has appropriated $60,000 for an addition to the main building of the State Sanatorium for Tuberculosis, Walker, and $15,000 for the building of shacks for outdoor treatment.

Hospital.—St. Lucas Hospital, Faribault, was dedicated with impressive ceremonies May 16, under the auspices of the Evangelical Synod of the district. The building has cost $80,000, is fire-proof and thoroughly equipped and contains 12 private rooms and a men's ward on the second floor, and on the third floor operating rooms, wards for women and children, and 21 private rooms.

Personal.—Dr. Owen J. Evans has succeeded the late Dr. Allen S. Whetstone as U. S. pension examining surgeon, Minneapolis.——Dr. Archa E. Wilcox has succeeded Dr. Peter M. Holl, resigned, as superintendent of the Minneapolis City Hospital.——Dr. Edward A. Meyerding, St. Paul, has been appointed medical inspector of public schools.——Dr. George R. Curran, Mankato, first lieutenant and assistant surgeon, Second Infantry, N. G. Minn., has resigned.

MISSOURI

Commencement.—The twenty-eighth annual commencement exercises of the University Medical College, Kansas City, were held May 14, when a class of 47 was graduated. Dr. J. N. McCormack, Bowling Green, Ky., delivered the address to the graduating class.

College Election.—At the annual election of officers of the University Medical College, Kansas City, Dr. Jabez N. Jackson was elected president; Dr. George W. Davis, secretary; Dr. Caleb A. Ritter, treasurer; Dr. Walter M. Cross, member of the board of curators; Dr. Samuel C. James, member of the board of directors, and Dr. John M. Frankenburger, dean of the school, vice Dr. James E. Logan, retired.

Hospital Staff Chosen.—At the annual meeting of the Board of Control of Levering Hospital, Hannibal, the following official appointments of the medical staff were made: Physician in charge, Dr. James N. Baskett; attending surgeon, Dr. Thomas Chowning; consultants, Drs. Charles E. Paxon and Henry L. Banks; attending physician, Dr. Archie L. Shanks; consultants, Drs. John J. Farrell and Richard M. Winn; attending gynecologist, Dr. Elmer E. Waldo; consultants, Drs. William H. Hays and Isaac E. Hill; attending obstetrician and pediatrician, Dr. John J. Bourn; consultants, Drs. Arthur B. Blue and W. Cloy Guss; genitourinary diseases and syphilis, Dr. Richard Schmidt; consultants, Drs. C. E. Vandiver and Edward H. Bounds; pathologist, Dr. Clifton R. Dudley; attending oculist and aurist, Dr. Edward T. Hornback; consultants, Drs. Ulysses S. Smith and James S. Howell, and x-ray specialist, Dr. Isaac E. Hill.

NEBRASKA

Verdict in Favor of Physician.—In the case of Luther Rich versus Dr. Charles C. Allison, Omaha, in which damages of $10,000 were claimed for the alleged leaving of a drainage tube in the chest following a surgical operation, the judge directed for the defendant May 25, as no evidence was adduced to show that a tube was used in the case.

Hospital Association Meeting.—The health officers of Nebraska met in Omaha, June 7, and organized the Nebraska Health Association, and elected the following officers: President, Dr. Daniel T. Quigley, North Platte; vice-president, Dr. Ralph W. Connell, Omaha; secretary, Dr. George H. Marvel, Aurora, and treasurer, Dr. J. H. Mackey, Norfolk.

Orthopedic Hospital.—The Nebraska Orthopedic Hospital will be located at 42d street and Dewey avenue, on a tract of more than six acres, purchased by the committee. This hospital was authorized by the legislature of 1905, and is designed to provide hospital care for crippled and deformed children of the state, and is intended to take the place of the present hospital which occupies a portion of the Home for the Friendless at Lincoln.

Personnel of Hospital Staff.—The official list of the recently appointed staff of the Douglas County Hospital, Omaha, is as follows: Executive committee: Drs. Frank E. Coulter, Frederick W. Lake and Paul G. Woolley. Consulting staff: Dr. Wilson O. Bridges. Pathology: Dr. Paul G. Woolley. Internal medicine, heads of staff: Drs. William F. Milroy, Paul H. Ludington, Thomas Truelsen, Arthur D. Dunn, Millard Langfeld and Burton W. Christie; assistants, Drs. Rodney W. Bliss, A. C. Petersen, F. McClanahan, and Adolph Sachs. Surgery, heads of staff: Drs. Herschel P. Hamilton, John E. Summers, August F. Jonas, John P. Lord, Arthur C. Stokes and Ernest W. Powell; assistants, Drs. Robert R. Hollister and Samuel R. Hopkins. Gynecology: Drs. Palmer Findley, Ewing Brown and Walter O. Henry. Eye, ear, nose and throat: Drs. Frank S. Owen, Henry B. Lemere, Harry L. Arnold and Louis B. Bushmann. Skin and venereal: Drs. Alfred Schalek, Herbert C. Sumney, John J. Klick and John W. Hellwig. Nervous and mental: Drs. Frank E. Coulter, Joseph M. Aikin, Clement B. Little and H. A. Wigton. Obstetrics: Dr. Alonzo E. Mack, Andrew B. Somers, Charles Rosewater, Mary Strong and Charles W. Pollard. Pediatrics: Drs. Frederick W. Lake and Rudolph Rix. Hygiene and sanitation: Dr. Solon R. Towne.

NEW YORK

New Asylum Named.—Governor Hughes has signed Senator Allds' bill which gives the name of Letchworth Village to the Eastern New York State Custodial Asylum.

Bequests to Albany Institutions.—The will of the late Jacob Lowenthal, Albany, bequeaths $5,000 each to the Albany Hospital and the Albany Hospital for Incurables.

Personal.—Dr. Joseph R. Culkin, Rochester, was operated on May 27, for appendicitis.——Dr. John B. Neary, Troy, has been appointed chief surgeon at the new government hospital, Panama.——Dr. Jesse Crounse, Altamont, who has been seriously ill with septicemia due to an operation wound, is now believed to be convalescent.

Semi-Annual Meeting of Society.—The semi-annual meeting of the Medical Society of the County of Columbia was held at Chatham, May 11. It was announced that the annual meeting of the society would be held in Hudson, October 5, in connection with the meeting of the Third District Branch of the Medical Society of the State of New York.

Alumni Elections.—The following officers of the Alumni Association of the Medical Department of the University of Buffalo were elected May 25: President, Dr. Henry J. Nichols, Bradford, Pa.; vice-presidents, Drs. Marshall Clinton, Buffalo; Charles L. Preisch, Lockport; N. Victoria Chappell, Buffalo; Eugene B. Horton, Niagara Falls; and Edgar A. Forsyth, Buffalo; secretary, Dr. Franklin W. Barrows, Buffalo; treasurer, Dr. Herman K. DeGroat, Buffalo; and trustee, Dr. Albert T. Lytle, Buffalo.——The class of 1899 of the Medical Department of the University of Buffalo, at its annual meeting, May 25, elected the following officers: President, Dr. Charles L. Kelley, Franklinville; secretary, Dr. Dean O. Thompson, Buffalo; and executive committee, the secretary, Dr. Louis J. Beyer, George S. Staniland, New York City, and Francis M. O'Gorman.——At the thirty-sixth annual meeting of the Association of the Alumni of Albany Medical College, May 17, the following officers were elected: President, Dr. Sheldon Voorhees, Auburn; vice-presidents, Drs. Zophar F. Dunning, Philmont; John J. D. McAllister, New York City; Charles Burnstein, Rome; Marshal Latcher, Oneonta, and Christian G. Hacker, Albany; recording secretary, Dr. Jesse M. Mosher, Albany; corresponding secretary, Dr. Andrew MacFarlane, Albany; treasurer, Dr. Robert Babcock, Albany, and historian, Dr. Arthur J. Bedell, Albany.

Tuberculosis Campaign.—The new dispensary for the treatment of incipient cases of tuberculosis was opened in Cohoes, June 2. The work is under the supervision of the health officer, Dr. Albert Mott, and Drs. John Archibold, Joseph C. E. Daunais and William E. Curtin are in charge.——The Rochester Day Camp for the Treatment of Tuberculosis was reopened June 1, under the charge of Drs. J. Raymond Hagaman and Edward G. Nugent.——A gift of $1,000 has been made to the board of health of Watertown, to be used according to the best judgment of the health officer for the check-

ing of the spread of tuberculosis. It is proposed to establish a summer tent colony on the grounds of the State Hospital. ——The Albany Chapter of the Red Cross Society has decided to establish a temporary camp for tuberculous patients near the city. The chapter now has about $2,000 at its command for the establishment and maintenance of the camp.——Dr. Charles E. Townsend, president of the staff of St. Luke's Hospital, Newburgh, has announced that arrangements have been made whereby tuberculosis patients will be examined, instructed, and treated in the hospital, free of charge two afternoons of the week.——A consumptive day camp was opened at Buffalo for its second season, June 1, with thirty patients. Later on accommodation will be provided for fifty. The camp will be under the direction of George H. Eckel.

New York City

Office Building for Physicians.—A new office building, twelve stories in height, to be devoted entirely to offices of physicians and dentists, is to be erected on Joralemon street, Brooklyn, between Court and Clinton streets.

Tuberculosis Hospitals for the City.—Plans have been filed for four four-story buildings for the open air treatment of tuberculosis on North Brother Island. The buildings are to be of concrete, roofed with copper and slate, and will cost $140,000.

Dermatological Election.—The following officers were elected at the annual meeting of the New York Dermatological Society, May 25: President, Dr. Samuel Sherwell, Brooklyn; secretary and treasurer, Dr. William B. Trimble, and executive committee, Drs. Henry H. Whitehouse, Andrew R. Robinson and George H. Fox.

Personal.—Dr. and Mrs. Walter B. James sailed for Europe June 9. Two days later Dr. James' residence on West 54th street was practically destroyed by fire. The loss was estimated at $75,000, which does not cover the library, which was one of the best in this country.——Dr. and Mrs. Warren A. James, Dr. and Mrs. James Belden Gere and Dr. Beatrice M. Hinkle have sailed for Europe.

Private Ambulances Must Slow Down.—It has just been decided in Jefferson Market police court that drivers must obey the orders of the traffic police. While the city ordinance gives ambulances the right of way at all times, the charter places the control of street traffic in the hands of the police commissioner. The present decision was rendered necessary because although private ambulances rarely go out on emergency cases they have been dashing about town at top speed.

More Bequests for Hebrew Charities.—The will of the late Ernest Ehrmann bequeathes $5,000 each for the Mount Sinai Hospital, the Montefiore Home from Chronic Invalids and the Beth Israel Hospital. In each instance the bequest is to be devoted to the founding of a bed in perpetuity to be known as the Ernest Ehrmann bed. The testator also left $10,000 to the Arthur Ehrmann memorial fund in connection with the United Hebrew Charities.

Physicians Graduated.—Fifty-two men and two women graduated June 9 from Cornell Medical School. The address to the graduating class was made by Prof. T. F. Crane, dean of the Cornell faculty, who made a strong plea for a more liberal education as the basis of a medical education.——The Fordam University School of Medicine held its first annual commencement June 1 and conferred the degree of doctor of medicine on eleven candidates. The program included the rectorial address by Rev. Daniel S. Quinn, president of Fordam University, and one by Dr. James J. Walsh on "The Profession for Six Thousand Years."

Plans Consumptive Home.—Believing that there is need of a special establishment in or near New York City where persons of means suffering from tuberculosis can receive treatment under the care of their own physicians and near their friends and business, Mme. Laurence Fiedler, who has already founded a hospital near Paris for poor girls, has started the present movement which has taken definite form in the shape of the Laurent Manor company. It is planned to take part of the earnings of the institution as a sinking fund for the purpose of establishing a free hospital for the treatment of the poor suffering from tuberculosis. The proposed establishment will offer the attractions and the organization of a high class hotel.

Charitable Bequests.—The will of Mrs. Anson G. Phelps, Jr., bequeaths $10,000 to the Presbyterian Hospital and $5,000 to the Lincoln Home and Hospital; also $5,000 to the Tarrytown (N. Y.) Hospital.——According to the will of Mrs. Margaret J. P. Graves, about $200,000 is to be distributed among the hospitals of the city. St. Vincent's Hospital is to receive $25,000; the Society of the New York Hospital, $10,000; Mount Sinai Hospital, $10,000; the Presbyterian Hospital, $10,000 for general purposes and $10,000 for the maintenance of the emergency ward; the New York Mothers' Home, $10,000; the New York Infirmary for Women and Children, $10,000; St. Luke's Hospital, $20,000 for hospital society work and $10,000 for the care and treatment of crippled children, and the Society for the Treatment of the Ruptured and Crippled, $10,000.——The will of Frank J. Walgering leaves about $81,000 to charitable institutions. Each of the following institutions receives $5,000: St. Francis' Hospital, St. Francis' Home, St. Vincent's Hospital, Presbyterian Hospital, German Hospital and Dispensary, St. Joseph's Hospital for Consumptives, St. Catherine's Hospital, Brooklyn, and St. Gabriel's Sanitarium for Convalescents in the Adirondacks.

Buffalo

Contagious Disease Pavilion.—The Buffalo General Hospital is constructing a pavilion with a capacity of eight to ten patients for the treatment of patients suffering from communicable diseases.

Anti-Spitting Ordinance.—The Buffalo Health Department is prepared to enforce the anti-spitting ordinance which takes effect July 1. Small yellow cards bearing the words, "You are violating the law against spitting. You are subject to imprisonment or fine, or both. By order of the Health Department," are being prepared for distribution.

PENNSYLVANIA

Personal.—Dr. Otto F. Berrand, Erie, sailed for Europe June 10.——Dr. W. J. Winters, Shenandoah, was thrown from his carriage June 10 and seriously injured.

Jewish Charities.—At the recent annual meeting of the Federation of Jewish Charities it was reported that $139,300 had been distributed to various charities during the past year. The following were some of the beneficiaries: Jewish Hospital, $32,300; Jewish Foster Home, $22,000; United Hebrew Charities, $34,500; Jewish Maternity, $9,500; and National Jewish Hospital for Consumptives, $3,000.

Plans for Sanatoria.—Plans for the new Jewish Sanitarium for Consumptives, to be erected at Eagleville, at a cost of $35,000, have been submitted. The main building will be the administration building, on each side of which will be an infirmary, one for men and one for women, surrounded by enclosed porches. Near the administration building a dining hall will be provided, and four shacks will be erected, each accommodating eight patients. These buildings will be located on a long slope, each having a different altitude. A new pavilion for tuberculosis patients is being erected at Byberry on the 700-acre tract recently purchased for a new almshouse. This building is being constructed for the accommodation of the city's poor consumptives.

State Tuberculosis Exhibit on Tour.—A new feature in the State Health Department's campaign against tuberculosis has been inaugurated by the health commissioner, who has sent on a tour throughout the state the exhibit which the department made at the recent International Congress on Tuberculosis at Washington. The exhibit consists of models of cottages, open air pavilions and tents in use at the State South Mountain Sanitarium. It includes a large relief map of the sanitarium and land assigned by the legislature to the department of health for sanitarium purposes. There are numerous charts and photographs illustrating the work of the department, and also a model dispensary illustrating how this part of the health department's work is conducted.

Philadelphia

Sanitarium Opened.—The Sanitarium Association of Philadelphia opens its sanitarium at Red Bank, N. J., June 12. This is the thirty-third annual opening of this institution for poor children.

Red Bank Sanitarium Opens.—The thirty-third annual opening of the Sanitarium for Children at Red Bank, N. J., was held at the institution June 12. One thousand children were conveyed from this city to the institution on steamboats. The opening address was delivered by Congressman George D. McCreary, president of the Sanitarium Association.

Portrait for the University of Pennsylvania.—A painting of the late Dr. John S. Dorsey was recently placed in the Medical Hall of the University of Pennsylvania. Dr. Dorsey was professor of materia medica and botany from 1816 to 1818, when he was elected professor of anatomy. He died a few days after his introductory lecture on that subject.

Personal.—Dr. James W. Kennedy was painfully injured in an automobile collision June 9.——Dr. Charles B. Penrose received the honorary degree of LL.D. from the University of Pennsylvania, June 16.——Dr. William C. Gorgas, President of the American Medical Association, received the honorary degree of LL.D. from Jefferson Medical College, June 7.——Drs. Alfred Stengel, Henry Norris and Dr. J. William White have gone to Europe.

Alumni Banquets.—The annual banquet of the Alumni Association of the Jefferson Medical College was held June 7. The following officers were elected: President, Dr. John M. Fisher; corresponding secretary, Dr. James T. Rugh; recording secretary, Dr. S. Mumford; treasurer, Dr. Randle C. Rosenberger, and chairman of the executive committee, Dr. Alfred Heineberg, all of Philadelphia.——The annual banquet of the Alumni Association of Medico-Chirurgical College was held at the Bellevue-Stratford, June 4. The following officers were elected: President, Dr. John H. Egan; secretary and treasurer, Dr. Arthur C. Morgan.

RHODE ISLAND

Personal.—Dr. Reginald Morse, Providence, has been appointed medical missionary, and will take station in India.——Dr. Fred B. Jewett, Howard, has been made superintendent of the State Almshouse, the State Workhouse, and the House of Correction.

Must Keep Register of Tuberculosis.—The Senate and House on April 13, passed concurrently an act providing that the State Board of Health shall keep a register of all cases of laryngeal and pulmonary tuberculosis. This act makes it obligatory on all physicians to report every case of tuberculosis on penalty of a fine of $10.

VERMONT

New Isolation Hospital.—The aldermen of Rutland have appropriated $2,500 for an isolation hospital for contagious diseases to be erected near the poor farm.

Personal.—The State Board of Health has appointed Dr. Charles F. Dalton, at present health officer of Burlington, to succeed Dr. Leonard P. Sprague as medicolegal chemist at the state laboratory of hygiene. Dr. Sprague will take up practice in Chateaugay, N. Y.

Meetings.—At the fourth annual session of the Association of Rutland Railroad Surgeons, held in Rutland, the following officers were elected: President, Dr. Clayton W. Bartlett, Bennington; vice-president, Dr. Frank M. Rogers, Alburg; secretary-treasurer, Dr. Stanton S. Eddy, Middlebury; and executive committee, Drs. James S. Hill, Bellows Falls; Clifford A. Pease, Burlington, and M. Richards Crain, Rutland.——Windham Medical Club, at its annual meeting in Bellows Falls, elected Dr. Fred L. Osgood, Townshend, president; Dr. Edward Kirkland, Bellows Falls, secretary, and Dr. James S. Hill, Bellows Falls, treasurer.——At the annual meeting of Franklin County Medical Society, held in St. Albans, May 20, the following officers were elected: President, Dr. Alan Davidson, St. Albans; vice-president, Dr. Charles A. Pratt, Enosburg Falls; secretary-treasurer, Dr. Edwin A. Hyatt, St. Albans; delegates to the state society, Drs. Albert D. Patton, East Fairfield; Arthur O. Morton, St. Albans; and Columbus S. Scofield, Richford, and censors, Drs. Francis W. Norris, Swanton; John Gibson, St. Albans, and Charles G. Abell, Enosburg Falls.

GENERAL NEWS AND COMMENT

Railway Surgeons Meet.—At the second annual convention of the Association of the Atlanta, Birmingham and Atlantic Railroad in Atlanta, May 20, the following officers were elected: President, Dr. Henry B. Disharoon, Roanoke, Ala.; vice-president, Dr. William W. Jarrell, Thomasville, Ga., and secretary, Dr. W. S. Goldsmith, Atlanta (re-elected).

Personal.—Dr. J. P. Perry, chief quarantine officer of the Canal Zone, returned May 18, from an inspection trip to the ports of the north coast of South America, and the islands of the Antilles.——Dr. and Mrs. Paul C. Freer, Manila, left for Europe by way of the Trans-Siberian Railroad, April 10. In the absence of Dr. Freer, Dr. Richard B. Strong assumes the duties of director of the bureau of science and dean of the medical school.——Dr. Fred B. Bowman, Manila, who has been ill with scarlet fever, is improving.

Alumni Meet.—On May 18, the Alumni Society of Harper Hospital, Detroit, was organized and the following officers were elected: Honorary president, Dr. Henry O. Walker, Detroit; president, Dr. Angus McLean, Detroit; vice-presidents, Drs. Channing W. Barrett, Chicago; Preston M. Hickey, Detroit; and Earl S. Bullock, Silver City, N. M.; secretary-treasurer, Dr. Alexander W. Blain, Detroit; and executive board, Drs. Clark D. Brooks, William G. Hutchinson, Archibald D. McAlpine, and C. P. Clark, all of Detroit.

Leprosy Hospital to Be Erected.—The Hawaiian legislature has made an appropriation of $40,000 for a leprosy hospital at Kalihi, and plans for the building will soon be ready.

Pension Examiners Meet.—At the annual meeting of the National Association of U. S. Pension Examining Surgeons, held in Atlantic City, the following officers were elected: President, Dr. Henry B. Walter, Harrisburg, Pa.; secretary, Dr. Philip Y. Eisenberg, Norristown, Pa.; treasurer, Dr. Charles H. Glidden, Little Falls, N. Y., and member of the executive committee for three years, Dr. S. Walter Woodyard, Greeneville, Tenn. The association will meet next year in Washington.

Carroll Fund.—The following subscriptions have been received since the last report:

Medical officers of the army	$ 5.00
Escambia County Medical Society, Pensacola, Fla.	5.12
New York Post-Graduate Hospital Alumni Association	28.00
Iowa State Medical Society	100.00
Richmond County Medical Society, Augusta, Ga.	15.00
Whitman County Medical Society, Pullman, Wash.	10.00
Dr. Julius Harold Hurst, Montecito, Cal.	5.00
"Three Friends," of New York City	3.10
Dr. S. Hoberman, Malden, Mass.	2.00
Students of sophomore and freshman classes of Rush Medical College, Chicago	46.00
St. John-St. Charles Bi-Parish Medical Society, Reserve, La.	5.00
	$ 224.22
Previously reported	5,168.64
Total amount received	$5,392.86

The Harvey Society.—The Harvey Society of New York calls the attention of the profession, and of all interested in the development and diffusion of knowledge of the medical and allied biologic sciences, to the permanent value of the lectures delivered under the auspices of the society. To make the work as widely accessible as possible, the council has decided to publish the collected lectures in book form at a price sufficient merely to defray the costs of publication. Two volumes have appeared already, the first containing the lectures of the year 1905-1906, and the second the lectures of 1906-1907. The lectures of 1907-1908 will be issued in a short time, and the volume containing the lectures for the current year is about to go to press. The price per volume is $2, and permanent subscriptions may be sent to the secretary, Dr. Francis Carter Wood, 437 West Fifty-ninth street, New York City.

FOREIGN

Special Seroreaction in the Blood of the Insane.—Considerable interest has been aroused by the recent announcement of Much and Holzmann that the serum of patients with dementia præcox and manic-depressive insanity constantly inhibits the hemolytic action of cobra venom, while other serums fail to display this property.

Cuban Scientific Commission.—The national board of health of Cuba has organized a special bureau for scientific research on subjects of practical utility for general hygiene. The bureau has been placed in charge of Dr. M. G. Lebredo, hitherto vice-director of the hospital "Las Animas," and one of the editors of the *Revista de Medicina y Cirugia* of Havana.

International Cancer Research.—The Germano-Ibero-American Association at Berlin is obtaining the cooperation of the different Spanish-American countries for the study of cancer, and the Argentine Republic has appointed E. Marino of Buenos Aires as the delegate in charge of the matter in Argentina, thus becoming a member of the International Cancer Research Association.

The Swedish Radium Society.—An association has been formed in Sweden for the purpose of studying radium and exploiting the radium-bearing ores of that country. It has been found that "kolm," a material found in the alum-slate quarries in the province of Westgothland, contains radium, and the association has obtained control of this district, as also of the new patented Hellsing process for obtaining uranium and radium from kolm and other ores. The new association is said to be quite large and to include the great physicist, Svante Arrhenius, as one of its leading spirits. Other countries are also investigating their radium-bearing ores. Portugal having found some very encouraging deposits, and similar news comes from Mexico.

International American Congress of Medicine and Hygiene.—The Argentine government and medical profession invite the nations of America to cooperate in an international congress, to open May 25, 1910, the centennial of the birth of the republic. It is to be held at Buenos Aires, and the committee of organization is already actively at work. The official languages are Spanish, English, French and Portuguese, and the members of the profession in the three Americas are urged to cooperate in making the congress a scientific event. The secretary will send bulletins, membership blanks, etc., and special steam and rail rates on request. Address Faculty of Medical Sciences, Buenos Aires, Argentina. An exposition of appliances for hygiene will be made a special feature of the congress, and manufacturers are urged to exhibit.

Appeal for Data on Reinfection with Syphilis.—Prof. A. Neisser of Breslau appeals through the German medical journals to physicians the world around begging them to inform him if they know of any instance in medical practice or in the literature of progressive paralysis in which a reinfection of syphilis occurred with the existing paralysis. He is collecting data to determine whether a positive seroreaction indicates the presence somewhere in the body of a spirochete focus or whether it is merely an indication that the patient has had syphilis at some time in the past. Is it possible, he asks, for persons giving a positive reaction to contract an unmistakable primary sore followed by secondary lesions? True reinfection we know almost never occurs with existing manifestations of syphilis. We also know that the resistance on the part of the skin to renewed infection can not be ascribed to genuine immunity. Apparently all individuals with progressive paralysis give a positive seroreaction, and consequently if paralytics could be found bearing evidences of recent infection along with their psychosis, this would be an important argument in favor of the assumption that a positive reaction may be obtained even in the absence of existing disease or spirochetes.

Foreign Congresses in the Next Few Months.—The Twelfth International Antialcohol Congress is to be held in London the fourth week in July; the Eighth International Tuberculosis Conference at Stockholm the second week, while an interesting meeting of the medical staffs of the hospitals of Germany will be held the same week, probably at Berlin. In August, the Fourth Latin-American Congress will be held in Rio de Janeiro; in the second week of August the Sixth International Psychologic Congress meets at Geneva and the French Congress of Alienists and Neurologists at Nantes. In the third week the Second International Leprosy Conference meets at Bergen, Norway; the fourth week the Fifth International Dental Congress at Berlin. The International Medical, including the International Otologic Congress, assemble at Budapest, August 29. A number of German congresses are to be held in September, including the Eighty-first *Naturforscher* Congress at Salzburg, the German Public Health Congress to meet at Zurich, and the German Neurologic Congress at Vienna the third week. The Ninth International Veterinary Congress opens at The Hague, September 13. The French hold their national surgical and medical congresses in October. Preparations are already under way for the Third International Congress of School Hygiene at Paris, March 29, 1910, and for the International American Congress of Medicine and Hygiene at Buenos Aires in May, 1910, the centenary of the Independence of the Argentine Republic.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, June 5, 1909.

The International Congress of Applied Chemistry

The Seventh International Congress of Applied Chemistry, which met for the first time in London, was largely attended by chemists from all over the world. All branches of applied chemistry were represented and much of the proceedings was of medical importance. The variations in the strength of preparations of drugs according to the country in which they are prepared, was discussed in the section on pharmaceutical chemistry. The variations were ascribed to two sets of causes —variations in the strength of the roots, leaves, etc., employed and variations in the formulas. A recommendation to the congress to appoint an international committee to investigate the subject and report to the next congress in 1912, was passed. An Austrian chemist recommended the formation of an international commission for the purpose of arriving at uniform methods of testing all drugs.

Australian Institute of Tropical Medicine

An Institute of Tropical Medicine is being founded in Townsville, Queensland, where there is already a large general hospital, the committee of which has undertaken to set apart, free of charge, an isolated building in the grounds for the investigation of tropical diseases, and also to maintain in the wards of the hospital under special observation patients suffering from these diseases. The institute will be controlled by a committee appointed by the Universities of Sydney, Melbourne and Adelaide, and will include one representative of the government of Queensland. Applications are invited for the post of director, who must devote his whole time to organization, research and tuition. The position will carry with it a salary of $3,000.

The Development of Trypanosomes in Tsetse Flies

Some time ago Dr. Kleine, director of the German organization against sleeping sickness, made the important announcement that the tsetse fly is not a mere vehicle for the carriage of trypanosomes, but that these organisms undergo in it a development analogous to that of the malarial parasite in the mosquito. Sir David Bruce, who is in charge of the Sleeping Sickness Commission in Uganda, has announced to the Royal Society that he has confirmed this observation. He has repeated Dr. Kleine's experiments with the *Trypanosoma gambiense* and *Glossina palpalis*, and also with a trypanosome of the dimorphon type. He has found the flies infective after 16, 19 and 22 days, but not before. It is thought that this discovery has considerable importance with regard to the prophylaxis of sleeping sickness, because once the cycle of development of the trypanosome is completed it may be capable of transmitting infection for long periods, just as the *Stegomyia fasciata* does yellow fever.

Remarkable Indemnity Fund

In 1905 an action for $10,000 was brought against Mr. Lynn Thomas, the leading surgeon in South Wales, and Mr. W. Skryme, a general practitioner, by a patient who was dissatisfied with the result of the treatment of a fracture-dislocation of the upper end of the humerus. The jury disagreed and the case was again tried in 1906. As it was of considerable interest to the profession, a full report was given in THE JOURNAL of Jan. 5, 1907, p. 61. The plaintiff alleged that Mr. Skryme diagnosed only the dislocation which he wrongly attempted to reduce with his heel in the axilla and put the arm up in a sling. Mr. Thomas was then consulted and recommended that the treatment should be continued. Subsequently, a skiagram was made and showed a transverse fracture of the surgical neck of the humerus with displacement outward of the upper fragment. Union took place in this position with much loss of function. The case attracted great attention from the profession, for most of the leading surgeons of London gave evidence on one side or the other. Mr. Thomas said that he had not recommended the application of a splint because he had known gangrene to follow in a similar case. The jury appears to have been influenced by the evidence for the plaintiff that the treatment laid down in the text-books had not been followed, and awarded the damages of $500. The low amount appeared to be the result of the fact that the verdict was a compromise between the divergent views of jurymen. The defendants, however, had to pay the costs. Though part of these were borne by the Medical Defence Union, the expenses of the trial were so great that defendants had to pay the large sum of $15,000. An appeal over the signatures of the leading surgeons of this country, which was subsequently endorsed by eminent foreign surgeons, was made to indemnify the defendants against having to pay a penalty for following other treatment than that laid down in text-books. It was pointed out that the practice of surgery is constantly changing, and that it would be monstrous if progressive surgeons should be made liable for damages every time they adopted a treatment in advance of that laid down in text-books. The appeal was well responded to, sums varying from $3.50 to $50 being subscribed. The total amount received was $9,000. The presentation of the fund will be made at Cardiff, June 4, by M. Lucas-Championnière, president of the International Surgical Society.

The Falling Birth Rate

The annual summary of the registrar-general, just issued, shows that the birth rate of England and Wales in 1908 was 26.5 per 1,000 of the population, being an increase of 0.2 over that of 1907, but a decrease of 1.6 compared with the decennial average.

The Children's Infirmary

The government, which has made a record in its provisions for the care of children, has made another new departure by establishing a children's infirmary at Carshalton in Surrey. Previously, there was no special infirmary for children among the institutions for the poor. The building has been erected at a cost of $11,500,000, and will be devoted to sick and convalescent children from the workhouses and infirmaries of London. It is anticipated that it will provide accommodation for 1,000 children. Motor ambulances have been provided for patients who can not be conveyed by train. Mr. Burns, president of the local government board, gave an address at the opening ceremony in which he said that nothing was more creditable than the way in which modern society had responded to the call of the child.

PARIS LETTER

(From Our Regular Correspondent)

Paris, June 3, 1909.

Prize in Naval Medicine

The prize in naval medicine has been awarded to Chastang for his memoir, "The Ear and Detonation; a Clinical and Therapeutic Study."

Congress of Alienists and Neurologists

The nineteenth congress of the alienists and neurologists of France and of French-speaking countries will be held at Nantes, August 2 to 8, under the presidency of Dr. Vallon, head physician of the Asile Ste. Anne, Paris. Three topics, bearing, respectively, on psychiatry ("The *Fugues* in Psychiatry," to be presented by Dr. Victor Parant *fils* of Toulouse), on neurology ("Chronic Chorea," by Dr. Sainton of Paris), and on legal medicine ("The Insane in the Army from the Medicolegal Point of View," by Drs. Granjux of Paris and Rayneau of Orleans) have been assigned for discussion.

Death of Dr. Bourneville

Dr. Bourneville, physician of the Bicêtre Hospital, has just died, aged 69. He was known especially for his works on abnormal children; he was also the promoter of municipal schools for nurses who are not members of religious orders. He founded the *Progrès médical* in 1873. Of late he had occupied the post of director of the Vallée Foundation, an annex of the Bicêtre for young girls of backward development.

Favoritism and Medical Studies

Even though the laws and regulations allow no one without the bachelor's degree to matriculate at a college of medicine, many students have evaded this requirement through the intervention of influential politicians. This favoritism is now eliciting a strong protest. A few days ago the Corporate Association of Medical Students in Paris organized, under the patronage of the French medical societies, a mass-meeting of protest against favoritism, and addressed to the Minister of Public Instruction a long letter in which some instructive facts are cited. For instance, an Algerian, son of a high dignitary, was permitted through favoritism to begin his medical studies without having taken any secondary studies at all. Physicians and students having protested, the favor was granted at Montpellier, and, to cap the climax, this Algerian was allowed to obtain his medical education at the expense of the state. A veterinary who wished to treat human beings was allowed to dispense with the first two years of medical studies.

The Minister of Public Instruction has now ordered that no student may become a candidate for any of the degrees or honors given by the state in any of the colleges or schools of higher education without placing on deposit the diploma required as a preliminary. Foreign students will be obliged to deposit their original diplomas, along with a translation made by a translator under affidavit. No exception is to be made hereafter.

The Corporate Association of Medical Students has another equally serious complaint, namely, that the provincial colleges, through favoritism, carry some students along without requiring them to attend either lectures or clinics. These phantom students sometimes live so far away that it would be physically impossible for them to be present at classes. For instance, a village schoolmaster was authorized to take a medical course while continuing to teach; he merely went, four times a year, for his quarterly enrolment. A professor in a high school over forty-three miles away from a medical school was allowed to enroll himself at this school without ceasing his duties; and in the same way a pharmacist did likewise, hoping no doubt to extract clinical experience from his phials. Still more remarkable is the story of the naval pharmacist who was learning medicine on board of an armored cruiser.

Such instances of favoritism are not merely flagrant injustice toward regular medical students and physicians; but a real public danger.

The Number of Medical Students in the French Medical Colleges

The Minister of Public Instruction has just published the statistics of the students enrolled Jan. 15, 1909, in the colleges and schools of higher instruction. Following are the figures for the medical colleges: Paris has 3,576 students; in the provinces, the most important center is Lyons, in which there are 942 students in the mixed college of medicine and pharmacy; the mixed College of Bordeaux has 675 students; the College of Montpellier (medicine alone) has 606 students; the mixed College of Toulouse has 435 students; the College of Nancy has 337; and the mixed College of Lille has 271 students.

Out of the total of 6,842 students, there are 912 foreigners, of whom 559 are Russians, 76 Ottomans, 47 Bulgarians, 42 Roumanians, 20 Greeks, etc. There are only 5 students from the United States, of whom 3 are at Paris.

The total number of women medical students is 689, of whom 294 are French and 395 foreigners.

These figures have to do only with the seven colleges of medicine. Besides these, there are in France two other classes of institutions of medical instruction, namely, the schools of the full practice of medicine, of which there are four, at Algiers, Marseilles, Nantes and Rennes, with a total of 795 students; and preparatory schools of medicine, of which there are 12, with a total of 644 pupils.

The Pierre Budin Foundation

Prof. Pierre Budin, who died two years and a half ago, was the first in France to popularize the infant consultations, where several times a week babies are weighed and carefully examined, and where mothers come to receive valuable instructions. In an excellent work which I have mentioned in a preceding letter, Dr. Ausset of Lille has shown the good influence which these consultations have exercised on infantile mortality (The Journal, Jan. 23, 1909, lii, 310; see also The Journal, 1905, xliv, 1033).

Two years ago an association called the Pierre Budin Foundation was formed to honor the memory of the lamented professor and to establish a practical school of puericulture with an infant consultation. This model establishment was opened on May 24, under the presidency of M. Emile Loubet, former president of the French Republic, assisted by M. Paul Strauss, a senator, Professor Landouzy, dean of the college of medicine, M. Mirman, director of charities under the minister of the interior, M. Mesureur, director of the Public Charities of Paris, etc. An ode by Jean Richepin, addressed to Pierre Budin, on the subject of the children of France, closed the program, and the guests were at liberty to admire the perfect equipment of the school of puericulture and the infants' consultation—its garden for the mothers, its sterilizing room, its chemical laboratory, its reception room and weighing room, etc.

BERLIN LETTER

(From Our Regular Correspondent)

Berlin, May 26, 1909.

Death of Professor Engelmann

Professor Engelmann, formerly director of the physiologic institute of this city, died on May 21, aged 66, from an apoplectic attack caused by arteriosclerosis of the brain. He was chiefly noted for his work on the physiology of the heart, but he was scarcely the equal of his predecessor, Du Bois-Reymond. Professor Rubner, who succeeds Engelmann, gives greater promise of rivalling the activity of Du Bois-Reymond.

Antituberculosis Convention

As usual, the convention instituted by the German central committee for the fight against tuberculosis held its meeting in Berlin in May of this year. The convention consists essentially of the general meeting of the central committee and the session of its executive board and a convention of physicians from the tuberculosis sanatoria. This year there was added a session of the board of directors of the recently founded commission for the campaign against lupus. To begin with the last, the transactions included a report of the work of the

committee to date and an address by Professor Lesser of this city on the modern treatment of lupus with the resulting discussion, the conclusion of which was that the Finsen treatment gives relatively the best results but that it must be supplemented by other methods.

The organization extends over the whole of Germany. The institutions for the campaign against tuberculosis are to be entrusted with the discovery and care of lupus patients. The existing lupus sanatoria are to be provided, where necessary, with the best apparatus possible and above all the necessary capital is to be collected. Including the $7,500 (30,000 marks) which the German central committee contributes there are at present $20,000 available. This sum is indeed small for the extensive plans of the association. In the general meeting of the German central committee for the tuberculosis campaign which was held under the presidency of the secretary of state (*Staatssekretär*) von Bethmann-Hollweg it w s reported that the receipts of the committee were about $108,000 of which $89,000 were derived from a lottery which the government granted permission to the central committee to conduct. About $40,000 were contributed to sanatoria and tuberculosis institutions. The number of places for intelligence and care has increased to 244. At present there are in Germany 99 public sanatoria for adults with 6,584 beds for men and 3,802 for women. In addition 2,013 beds are available in 34 private institutions. On the average, allowing three months for the occupancy of each bed by one patient, about 52,000 adult patients are treated annually. There are 18 children's sanatoria with 695 beds, and 7,329 beds are available in 79 institutions which exist for scrofulous children and those threatened with tuberculosis. The number of forest convalescent stations has risen to 92 and there are 7 forest schools. The question of disinfection in tuberculosis with especial reference to disinfection of dwellings was taken up. The essential prerequisite of thorough house disinfection, namely, the general requirement of notification of tuberculosis, is lacking in Germany as tuberculosis is not included in the law regarding epidemics. One must therefore be contented with the promotion of voluntary notification; notices are to be sent to the hygienic bureaus for this purpose and the disinfection of dwellings is to be carried out by them. As there are so far no suitable means for disinfection on a small scale, the emphasis must be placed on making the expectoration harmless. The disinfection of linen, especially of handkerchiefs, is important. Dr. Hamel, member of the imperial health office, presented a thorough report regarding the tuberculosis campaign in the United States, especially in New York, and its applicability to German conditions. The reporter made a thorough study of American tuberculosis institutions during his visit to the Washington tuberculosis congress last year. Both the official and voluntary organizations are highly commended. The American sanatoria enjoy a greater popularity than the German.

Fish Poisoning

A young bacteriologist presents in the last number of the *Deutsche medizinische Wochenschrift* an interesting contribution to the question of the origin of fish poisoning, new cases of which will surely be brought to notice with the beginning of hot weather. He has shown the presence of paratyphus bacilli in the ice in which sea-fish were packed for transportation and is of the opinion that the fish may become infected by these bacteria from the ice. He concludes that the usual packing of sea-fish in ice does not prevent the occurrence of fish poisoning and urges that the method of preserving fish be improved. Only natural ice from a source free from infection should be used for packing.

Antivaccination

In spite of the brilliant results which have followed compulsory vaccination in Germany, there exists with us a party, not numerous, but very obstinate, opposed to vaccination, on the ground that it is superfluous, an invasion of the freedom of the individual and dangerous to health. To be sure, there is no doubt that formerly a not inconsiderable injury was produced by vaccination. Many diseases of the skin, probably scrofula, and certainly syphilis, were conveyed by the formerly widespread custom of arm-to-arm vaccination. In preantiseptic times not a few infections occurred from vaccination, so that many a child has lost his life as a victim of the measure. But all these dangers of vaccination have grown constantly fewer and accidental bad results occur rarely at the present time. According to a recently published report on the results of vaccination in Prussia, in 1907, it appears that during that year eleven deaths occurred shortly after the first vaccination and none after revaccination. Six of these fatal cases had no etiologic relation to vaccination, and the remaining five could not be attributed to any imperfection of the lymph or to faulty technic. One child died from gangrene of the skin around the vaccine vesicles, ten days after the operation; two died from gangrene of the vaccinated area several weeks after the vaccination, and it is probable that the disease arose from subsequent scratching of the vaccine vesicles. In two cases erysipelas was the cause of death. Complications of vaccination with favorable outcome were quite frequently observed. They are generally due to improper treatment of the pustules by the vaccinated or their relatives (rubbing, scratching, washing with a dirty sponge, unclean clothing, etc.). These complications consisted of inflammation and suppuration of the subcutaneous connective tissue, gangrenous changes in the vaccination pustules, suppuration of the neighboring lymph gland, erysipelas, eczema, general eruptions of the skin, appearance of vaccination pustules on other parts of the body (so-called generalized vaccinia) and transmission of pustules to unvaccinated persons. All these complications are greatly exaggerated by the opponents of vaccination and used as propaganda material to secure the repeal of the vaccination law. These efforts of the laity are supported by some physicians (fortunately, only a few). Last April an association of antivaccinationist physicians petitioned the imperial chancellor to appoint a non-partisan commission for the investigation of the question of compulsory vaccination. They complain that in spite of "alarming facts" and in spite of repeated protest from "unnumbered" opponents of vaccination, compulsory vaccination is still constantly enforced in Germany. They attribute the present comparative rarity of smallpox epidemics to modern hygiene; and they hold that the occurrence of over a million tuberculous cases in the German Empire yearly is largely due to compulsory vaccination.

It is not too severe a judgment to characterize an agitation of this sort as conscienceless. The physicians belonging to the executive committee of the association are mostly notorious for their participation in the so-called nature-cure movement and other attempts at quackery. Among them is also Professor Jäger of Stuttgart, the well-known "apostle of wool," and discoverer of the alleged fact that "the soul can be smelled."

Students' Home at Kiel

At Kiel a few days ago there was laid the corner-stone of a recreation house for students. A building will be erected on a plot of ground which was transferred to the university by the city at cost price, $48,000, which is to serve as a meeting place for the student body for intellectual recreation and athletics. In a park-like garden, adorned with old trees, on the Kriegshafen, will be placed a building designed as a casino for students and professors, which will contain, in addition to a large banqueting room, assembly rooms, reading rooms and rooms for gymnastics and fencing. In the garden, tennis-courts, race-courses and bowling alleys will be provided. Especial attention will be given to aquatic sports. The cost of construction, including the interior furnishing and exterior parking will be about $84,000. The expenses will be met by large donations; among others, $36,000 from the "docents."

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, June 5, 1909.

An Accident Clinic in the Allgemeines Krankenhaus

Professor Hochenegg, director of the second surgical clinic, announced to the students that the accident ward, long desired by the leading professors of surgery in this city, has now been granted. This act shows the intimate connection between students and teacher. The two directors of the surgical clinic, who are also the principal teachers of surgery, Hochenegg and von Eiselsberg, will be jointly directors of the new ward. The advantages expected from the new clinic are very considerable from the standpoint of teaching of students. The regular lectures will be able to deal with the cases that come to the practitioner's notice better than heretofore. An agreement has been arrived at with the general first aid society or street ambulance society, the members of which are the first to be called to any case of accident or emergency in this city. This society will erect a branch office in the general hospital and there students and junior surgeons of the clinic will have to serve a term; nurses will be able to receive proper instruction as to the after-care of

injured persons, a point well worth mentioning in view of the low standard of knowledge displayed here by the majority of nurses in this respect. The transportation of injured persons from the place of accident to the hospital will be watched by students as well. Under the system at present in force both clinics had in the last year no more than 49 injuries to show during the ten months of the university year. All the other victims of accidents had to be conveyed according to regulations to the hospital nearest, and, as there are at present minor hospitals nearly in every district, the cases were lost for teaching purposes. The constant decline of the number of such patients was a long-standing grievance to the professors, and, while Billroth had, some twenty-five years ago, more than 300 cases a year, Albert and Gussenbauer, his successors, had to be content with two or three cases a week. The new ward will have 60 beds, with surgical and internal rooms. Arrangements have been made by the army medical corps to enable medical officers of the force to serve there a term of three months to profit from the opportunity thus offered to them.

Pharmacology

"HYDROCYANATE OF IRON—TILDEN"

W. A. Puckner and W. S. Hilpert

[Contribution from the Chemical Laboratory of the American Medical Association.]

Among the many inquiries received regarding the composition of secret remedies was one in reference to "Hydrocyanate of Iron" manufactured by The Tilden Company, New Lebanon, N. Y. This preparation is advertised as being "unexcelled as a remedy for epilepsy, hysteria, chorea, neurasthenia, locomotor ataxia, neuralgia, migraine, anemic headaches, and all convulsive or reflex neuroses dependent on impairment of the brain or spinal cord." It is also said to be "valuable in uterine reflex neuroses due to congestion; in amenorrhea due to anemia and chlorosis and suppressed menstruation."

The term "hydrocyanate of iron" is an unfamiliar one and is not found in any available reference work on chemistry. Thinking that the term might have been loosely applied to ferrocyanid of iron, or Prussian blue (a compound once suggested for epilepsy, but long ago considered useless), the correspondent wrote to the manufacturers asking if such were the case. The Tilden Company answered:

> " . . . our preparation Hydrocyanate of Iron is not Prussian blue in any sense of the word. Prussian blue has no curative properties as applied to all forms of epilepsy. Prussian blue is Ferrocyanid of Iron while our preparation is Hydrocyanate of Iron."

The only statements in the Tilden Company's advertising matter, regarding the composition of hydrocyanate of iron are the following:

> "Hydrocyanate of Iron (Tilden's) is a correct and scientific combination of well known principles."
>
> "Hydrocyanate of Iron (Tilden's) combines well known properties of ferruginous salts with the sedative action of Hydrocyanic acid."

The last statement would lead one to expect the presence of available iron and cyanogen ions. In fact, the inference to be drawn from all the company's "literature" is that "hydrocyanate of iron" is a definite chemical compound in the same sense as is ferrocyanid of iron, and that inference is still further borne out in the letter to our correspondent. This being the case, the Tilden Company was again written to and asked for the chemical formula of "hydrocyanate of iron," with the following result:

> "Replying to your inquiry regarding the formula of Hydrocyanate of Iron we beg to state the composition of this preparation is a trade secret and we therefore do not care to furnish the desired information."

This reply verified the opinion already formed that "hydrocyanate of iron" is a secret preparation. Its analysis was then taken up in the Association's laboratory.

EXAMINATION OF THE TABLETS

The product appears on the market in cartons said to contain one ounce of one-grain tablets. On the cartons, in addition to the name of the preparation and the name and address of the manufacturers, are the names of diseases for which it is recommended. The tablets, in the specimens analyzed, were dark blue, rather hard and slightly bitter in taste and had an average weight of 0.1382 gm., or about 2 grains. They were found to be practically insoluble in water and dilute mineral acids; aqueous oxalic acid solution partially dissolved them, yielding a blue solution. Boiling with alkali hydroxid solution decomposed the tablets, yielding iron in an insoluble form and a solution of alkali ferrocyanid, as demonstrated by the appearance of a deep blue precipitate on the addition of ferric chlorid solution. The portion insoluble in alkali when boiled with hydrochloric acid yielded a solution containing iron, approximately equivalent to 50 per cent. Prussian blue. These properties are all characteristic of Prussian blue and, taken together, identify Prussian blue as a constituent of "hydrocyanate of iron (Tilden.)" The insoluble residue from the iron determination possessed the properties and constituents of talc and constituted practically one-half of the tablets. Extraction of the tablets with chloroform or ether in the presence of ammonium hydroxid yielded a small amount of organic material which contained bodies having the properties of, and responding to tests for, quinin or cinchona alkaloids and caffein. The presence of a salicylate was also indicated.[1]

From the analysis it is concluded that "hydrocyanate of iron (Tilden)" is essentially a mixture of approximately equal parts of talc and Prussian blue, containing traces of organic matter having the general properties of alkaloids.

Comment: When a firm exploits an abandoned remedy for so hopeless a disease as epilepsy under a name not known to chemistry and with a false representation of its pharmacologic qualities, such action may rightly be assumed to show ignorance or worse. "Hydrocyanate of iron," if it means anything, means the cyanid of iron, but the preparation put out under that name is, according to our chemists, not cyanid of iron, but the ferrocyanid of iron commonly known as Prussian blue. This substance has been tried for epilepsy and abandoned. Yet the firm recommends it as a "peerless remedy" for this disease. "The Tilden Company holds the key to the situation in the treatment of epilepsy. We have the remedy that does the work."

Not that epilepsy is the only disease for which this hypothetical chemical compound may be prescribed. Torticollis has been "successfully treated with hydrocyanate of iron." In chorea, we are told "a richer and better blood supply" should be furnished the nervous and vascular system and "the irritation of the motor centers" must be allayed.

> "Hydrocyanate of Iron serves admirably to accomplish both of these purposes. It carries the hemoglobin to the blood in its most easily assimilable form and its hydrocyanic acid possesses remarkable sedative powers . . . ."

It is not possible for it to have any value in anemia because of its insolubility, yet we are told:

> "In conditions marked by poverty of the blood producing anemia or chlorosis, reacting on the nervous system and calling for a chalybeate, hydrocyanate of iron (Tilden's) takes a front rank among the remedies of this class, combining as it does the blood enriching qualities of ferrum with the sedative action of hydrocyanic acid."

As Prussian blue yields no appreciable quantity of hydrocyanic acid under the conditions existing in the animal organism, "the sedative action of hydrocyanic acid" must be as hypothetical as the chalybeate properties attributed to it.

It is strange that a manufacturer, in introducing a new chemical compound, should have to assure his customers that it "contains no opium or alkaloid, of that drug, cocain, chloral hydrate, conium or any of the bromids." Imagine a firm putting, let us say, potassium iodid—a definite chemical compound—on the market and solemnly guaranteeing that it contained no cocain or chloral hydrate!

Would the Tilden Company of twenty-five years ago have served such mental pabulum in its advertising matter?

One would think that the dictates of common humanity would protect the unfortunate epileptic from the machinations of the nostrum maker, especially from the exploitation of a remedy that has been tried and found wanting. A nostrum, however, merely has to measure up to one standard: Will it pay? Meeting this requirement nothing else matters.

1. Details of the quantitative analysis of "Hydrocyanate of Iron—Tilden" will appear in the Annual Report of the Chemical Laboratory of the American Medical Association or they may be had on request.

Correspondence

Sir Frederick Treves An Ardent Supporter of Animal Experimentation

To the Editor:—In the *Journal of Zoöphily* for May, 1909, p. 45, is a quotation from an address of Sir Frederick Treves, from which any unsuspecting reader would infer that Sir Frederick is utterly opposed to vivisection. I sent him a copy of that journal and have received in reply the letter which follows this. You observe that he refers to a letter published in the London *Times* on April 18, 1902 [which has appeared in THE JOURNAL and in other medical periodicals]. This was noticed editorially in the *British Medical Journal* on April 26, 1902, p. 1042. Inasmuch as the *British Medical Journal* is gone over with a microscope by the antivivisectionists every week, it is impossible that this should have escaped their attention, even if they did not see the original in the London *Times*.

In spite of these facts, this misquotation from Sir Frederick Treves is constantly and flaringly made in the *Journal of Zoöphily*, in some of the publications of the New England Antivivisection Society, and probably in others. Surely seven years after such a disclaimer common honesty would require that these allusions be suppressed.

W. W. KEEN, Philadelphia.

Prof. W. W. Keen:

Dear Sir:—I notice from certain papers sent me from America that the antivivisection party are as active in your country as in mine.

I notice also that the methods which have covered the antivivisection party with contempt and ridicule in this country are being reproduced in America.

In England the improper use of my name has very nearly ceased owing to the persistent circulation of the enclosed letter [the one in the *Times* above referred to.—ED.] and the repeated publication of the fact that I am—as every sane medical man must be—an ardent supporter of vivisection.

The fact that your name has been brought into the matter has led me to trouble you with this letter in the hope that you may be able to make use of it should you consider the matter worthy of notice.

FREDERICK TREVES,
Kingston-on-Thames, Eng.

Old-Age Pensions for Physicians

To the Editor:—I read with interest Dr. Magruder's letter, published in THE JOURNAL, May 22, p. 1682, suggesting the establishment of a national home for aged or infirm physicians. Would not a system of old-age pensions be preferable? Many physicians in need of such a retreat as a national home would provide, could not share its advantages because of distance, illness or domestic reasons. I believe that a pension fund placed in the keeping of a board composed of successful business men, or some trust company, the income from this fund to be paid to such worthy physicians as are in need by reason of old age, illness or accident is what we need.

C. BUSEY, M.D., Clearwater, Idaho.

Congregational Practice and Contract Practice

To the Editor:—Several press reports of my paper on "Congregational Practice," read by title before the American Academy of Medicine, tend to convey the idea that I favor the ordinary form of contract practice. Without anticipating the publication of the paper, I may say that it proposes a much broader scope of professional service, which would be put into execution only by a gradual development of professional and public opinion, the basis of payment being only one of the details. Ordinary contract practice starts with a false conception of the value of services and usually involves *bad faith* both as to demand and fulfilment.

A. L. BENEDICT, Buffalo, N. Y.

Miscellany

THE MIDWIVES OF BALTIMORE

A Report to the Medical and Chirurgical Faculty of Maryland

MARY SHERWOOD, M.D., BALTIMORE

The Evening Dispensary for Working Women and Girls of Baltimore, in cooperation with the Mothers' Relief Society, organized three years ago an obstetric service which cares for indigent parturient women in their homes. Early in this service it was learned that the conditions of the practice of midwives in Baltimore city are, in the light of twentieth century medicine, well-nigh intolerable.

The investigation of the midwives of New York made by Miss Crowell under the auspices of the Public Health Committee of the Association of Neighborhood Workers in 1906 (*Charities and the Commons*, Jan. 12, 1907; abstracted in THE JOURNAL, Feb. 23, 1907, p. 712), with the legislation resulting therefrom, suggested a similar study in Baltimore as a basis for asking for legislation on the practice of midwives in Maryland. A special fund for this purpose was contributed to the organizations named by lay women who in their social and philanthropic work had been impressed by the conditions surrounding childbirth among the poor. A committee, consisting of Dr. Lillian Welsh, Dr. Elizabeth Hurdon, and myself, was appointed to direct the work.

The committee has had the cordial cooperation and active assistance of the health department in making this study. It was fortunate in securing the services of Miss Alice H. Small, a trained social worker, to undertake the actual investigation.

Miss Small has personally interviewed the 150 midwives in active practice in the City of Baltimore. The facts she has obtained have been tabulated in a form similar to the tables given in Miss Crowell's report. While our investigation was in progress a report on the midwives of Chicago was published in THE JOURNAL of the American Medical Association (April 25, 1908, l, 1346). These two reports, with ours, give data for an interesting summary and comparison of the conditions of midwifery practice tolerated in three large American cities.

The committee desires to place before the faculty the following facts brought out in our investigation:

1. More than one-third of the births reported at the Health Department are reported by midwives. During the period covered by our tables the percentage of all births reported by midwives was 40.7.

2. There is no adequate registration of midwives, as the law making registration compulsory has no clause providing for notification of change of address; the only knowledge of such change is gained by birth certificates. The registration called for by the health department preliminary to our investigation was the first for many years.

3. No qualifications are required for registration as a midwife. Any one may qualify with no questions asked. Of the 150 included in our tables, 42 (28 per cent.) had foreign diplomas; 9 had American diplomas—worthless as indicating any adequate training; 99 (66 per cent.) gave no evidence of training of any kind. Thirty-seven (24.7 per cent.) could neither read nor write. Twenty-five (16.7 per cent.) could not speak English. In Chicago there is practically no illiteracy, and in New York the percentage is much lower than in Baltimore. The large number of negroes in our number accounts for the high percentage here.

4. There is absolutely no supervision of the work of these midwives. The one law relating to the practice of midwives, secured by this faculty largely through the efforts of Dr. Hirma Woods, provides a penalty for neglect of attention to the eyes, yet an analysis of their practice shows that 3 only out of 150 use a weak solution of nitrate of silver for the eyes, while the remainder use anything from breast-milk to bichlorid of mercury of unknown strength. Sixty-six per cent. care for abnormal cases; they perform version and remove the delayed placenta by internal manipulation. Of the bags examined 41 were found to be clean and in good order; 51 were dirty; 44 midwives had none. A very small number use antiseptics for the hands and sterilized tape for the cord. On account of lack of supervision even well-trained

TABLE 1.—150 MIDWIVES OF BALTIMORE: PERSONAL STATISTICS

Nationality.		Age in Years.								Residence in America.				Education.				Diploma			Registered at Health Board		Home Conditions.		
														Read and Write.		Speak English.									
		20 or less.	20-29.	30-39.	40-49.	50-59.	60-69.	70-79.	80-89.	1 yr. or less.	1-10 years.	10-20.	20 or more.	Yes.	No.	Yes.	No.	American.	Foreign.	None.	No.	Yes.	Good.	Fair.	Bad.
Americans	35	..	..	2	9	15	7	2	..	..	..	..	..	35	.....	..	35	..	3	..	32	29	6	19	15	1
Negroes	45	..	..	4	6	11	13	10	1	..	..	..	..	9	(R) 6	30	45	..	..	..	45	43	2	11	15	19
German	27	..	..	1	6	9	10	1	..	..	1	9	17	25	.....	2	19	8	3	15	9	23	4	18	6	3
Russian Hebrew	13	..	1	3	5	4	..	..	..	1	5	6	1	10	.....	3	8	5	..	9	4	11	1	4	6	3
Bohemian	6	..	..	3	1	2	..	..	..	1	2	3	..	6	.....	..	4	2	1	5	..	6	..	5	1	..
Polish	6	..	..	1	..	4	1	..	..	..	3	..	3	5	(R) 1	..	3	3	1	2	3	4	2	2	3	1
Austrian	4	..	..	3	1	..	..	..	..	..	4	..	..	4	.....	..	1	3	..	4	..	4	..	3	1	..
Hungarian	2	..	..	..	1	1	..	..	..	..	2	..	..	2	.....	..	..	2	..	2	..	2	..	..	2	..
Irish	4	..	..	..	2	..	2	..	..	..	..	..	4	2	.....	2	4	..	..	..	4	4	..	2	2	..
French	1	..	..	..	1	..	..	..	..	..	..	..	1	1	.....	..	1	..	..	1	..	1	..	1	..	..
Italian	2	..	..	1	..	1	..	..	..	..	1	..	1	2	.....	..	..	2	..	1	1	2	..	2	..	..
Swedish	2	..	..	..	..	1	1	..	..	..	..	..	2	2	.....	..	2	..	..	2	..	2	..	2	..	..
Swiss	1	..	1	..	..	..	..	..	..	..	1	..	..	1	.....	..	1	..	..	1	..	1	..	1	..	..
Norwegian	1	..	..	..	1	..	..	..	..	..	..	1	..	1	.....	..	1	..	1	..	..	1	..	1	..	..
English	1	..	..	..	..	..	..	1	..	..	..	..	1	1	.....	..	1	..	..	..	1	1	..	1	..	..
Total	150	..	2	18	33	48	34	14	1	2	19	19	30	106	(R) 7	37	125	25	9	42	99	124	15	72	51	27

TABLE 2.—150 MIDWIVES OF BALTIMORE: FACTS ABOUT THEIR PRACTICE

Nationality.		Length of Practice; Years.				Methods of Practice.													
						Attends *Normal* Cases Only.		Uses Antiseptics.		Equipment and Cleanliness of Bag.				Care of Infants' Eyes and Cord.		Attention to Mother.		Suspected of criminal practice.	Receives and cares for patients in home.
		1 or less.	More than 1 and less than 10.	10-19.	20 or more.	Yes.	No.	Yes.	No.	Good.	Bad.	Not seen.	None.	Good.	Bad.	Yes.	No.		
American	35	..	7	7	21	14	21	35	..	10	8	4	13	22	13	35	..	14	2
Negro	45	1	6	12	26	29	16	14	31	5	21	6	13	11	34	43	2	11	4
German	27	..	5	4	18	16	11	22	5	10	9	3	5	14	13	27	..	11	1
Russian Hebrew	13	..	3	2	8	13	..	13	..	5	5	..	3	9	4	13	..	..	..
Bohemian	6	..	..	4	2	5	1	6	..	3	3	..	..	6	..	6	..	2	..
Polish	6	..	1	2	3	3	3	2	4	1	1	..	4	4	2	6	..	3	..
Austrian	4	..	4	..	..	4	..	4	..	2	1	1	..	4	..	4	..	..	..
Hungarian	2	..	..	2	..	1	1	1	1	1	1	..	..	2	..	2	..	2	..
Irish	4	..	..	2	2	4	..	..	4	..	1	..	3	2	2	4	..	1	1
French	1	..	..	..	1	1	..	1	..	..	..	..	1	1	..	1	..	..	..
Italian	2	..	..	1	1	..	2	1	1	1	1	..	..	1	1	2	..	..	..
Swedish	2	..	..	..	2	1	1	2	..	1	..	..	1	1	1	1	..	2	1
Swiss	1	..	1	..	..	1	..	1	..	1	..	..	..	1	..	1	..	1	1
Norwegian	1	..	1	..	..	..	1	1	..	1	..	..	..	1	..	1	..	..	..
English	1	..	..	..	1	..	1	1	..	..	..	..	1	1	..	1	..	1	1
Total	150	1	28	36	85	92	58	104	46	41	51	14	44	80	70	147	2	48	11

midwives take no precautions to insure asepsis. One foreign midwife showed a sterilizing apparatus required in her native country, whose use in her adopted country would, she said, expose her to ridicule.

The practice of midwives has been controlled in France since 1803; in Austria, Norway and Sweden, since 1810; in Belgium since 1818; in Russia and in Prussia for many years. Finally, after a long and bitter controversy, Great Britain has adopted and put in operation (1903) an act establishing a "statutory certified midwife."

This report is presented to the Medical and Chirurgical Faculty of Maryland in the hope that it will take the initiative in a movement to secure the better training of midwives and to regulate their practice in the City of Baltimore and the State of Maryland.

Some Fallacies in the Care and Treatment of Children.—In summing up this subject, Dr. H. W. Cheney (*Quarterly Bulletin of Northwestern University Medical School*, March, 1909) gives the following pithy advice:

Don't put a flaxseed poultice or a clay mixture on the child whose breathing is already embarrassed.

Don't allow the filthy "baby comforter" in your presence without a protest.

Don't blame the baby's teeth for a disease you do not take the trouble to find.

Don't be afraid of fresh flowing air for children at all times.

Don't forget to examine the new-born babe and circumcise if necessary.

Don't prescribe medicine when other measures are better—and have the courage to tell your patients so.

Railroad Accidents.—According to Accident Bulletin No. 30, of the Interstate Commerce Commission, the number of persons killed in train accidents during October, November and December, 1908, was 184, and of injured 2,924. Accidents of other kinds—employés killed at work, passengers getting on and off cars, etc.—bring the total number of casualties up to 17,644 (798 killed and 16,846 injured). The number of passengers killed in collisions and derailments, namely 34, is only two-thirds as large as in the last preceding quarter, and if those killed in one case under very unusual circumstances be deducted, the number is reduced to 21, or exactly the same as one year ago. The total number of collisions and derailments in the quarter now under review was 2,684 (collisions 1,373, derailments 1,311) of which 206 collisions and 130 derailments affected passenger trains.

Human Muscular Activity and Pulse Rate.—T. A. Aulo (*Skandin. Arch. f. Physiol.*, xxi, 146) performs a series of experiments on human subjects which verify the observations

of Johansson on animals. It is claimed that the increase in pulse rate during muscular activity is accomplished through the cardiac center, motor impulses being sent to the heart by way of the cardiac nerves. Increased respiration which accompanies muscular exercise is a sufficient explanation for the increase in the pulse rate. An increase of blood pressure does not affect the pulse rate. Although there is usually a parallelism between body temperature and pulse frequency, yet an increase in body temperature is to be looked on more as a result than an explanation of an increased pulse rate. The latter appears first. The products of metabolism after violent exercise were thrown into the circulation by massage. No change in the pulse rate was experienced. Massage and electrical stimulation of the skin also had no effect on the pulse rate. Peripheral centripetal nerves have no appreciable influence on the activity of the heart.

Stokes-Adams Disease and the Nerves of the Bundle of His.—J. Gordon Wilson, in a communication to the Royal Society, London, February 17 (reported in *Nature*, March 4, 1909), combats the myogenic theory of the Stokes-Adams syndrome. He mentions that both Tawara and Retzer had found nerve fibers and cells in the atrio ventricular bundle, and gives the results of his own researches The material used was obtained from the pig, calf and sheep, and the methylene blue "vital" method was followed. His conclusions were that the atrio-ventricular bundle, besides containing a special type of muscular fiber, differing from the ordinary heart muscle, contains an important and intricate nerve mechanism, in which are seen ganglion cells, monopolar and multipolar, the processes of which pass to adjacent cells and nerve fibers and to the muscle fibers and through the muscle bundle so far as it was examined; abundant nerve fibers running through it in strands; an intricate plexus of varicose fibers around the muscle fibers and an ample vascular supply with well-marked vascular nerves and sensory endings. These findings demonstrate that the interruption of an important nerve pathway must be reckoned with in the pathology of Stokes-Adams disease, and that this is at least as important a factor as the muscular involvement.

The Proportion of the Sexes.—At the session of the Royal Society, London (reported in *Nature*, March 11), Mr. Walter Heape presented a paper based on the statistics of births issued by the chief sanitary officer of Cuba, 1904 1906, covering 177 704 births, namely whites 135.881, and colored 41,823, including still births. These statistics show the following points· 1. There is a racial difference in the proportion of the sexes born; for whites, 108 44 males; for colored 101.12 males, for every 100 females This agrees with other statistics for both races. 2. In both living births and still-births in both races there is a consistent variation in the proportion of the sexes produced by legitimate as compared with illegitimate union, for whites, legitimate 109, illegitimate 105.95 males per 100 females; for colored, legitimate 107 73, illegitimate 97.91 males per 100 females There is therefore a marked increase in the proportion of females born in illegitimate births and it is asserted that they are chiefly induced by individual physiologic conditions affecting the metabolic activity of the woman. 3. In both whites and colored there are two sharply defined breeding seasons each year correlated with marked climatic changes tending to increase individual metabolic activity. At these times of greatest fertility the largest proportion of females are born 4. A considerably higher proportion of females are born in towns than in country districts, where life is harder. 5 Although heredity in the main governs the proportions of the sexes born in the two races, there are sometimes variations under certain conditions, and these are similar in character for both races. These conditions are directly associated with forces which affect the metabolic activity of the mother, and suggest the probability that the ripening and production of ova of the different sexes is influenced thereby. Thus it is held that a struggle for existence is always going on among the sexual ovarian ova, and that these extraneous forces influence the result. Speaking generally it appears that the greater the metabolic activity of the ovary the more females are produced.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

CHEWING GUM IN THE MALE BLADDER

To the Editor.—A young man, aged 28, well-developed, was referred to me from Portsmouth, Ohio, June 5, 1909 His physician was Dr Merchant of Columbus, Ohio The patient was a masturbator and used chewing gum in the form of a bougie; one day he lost control of the gum, which worked into the bladder. Examination showed a decidedly contracted meatus Performed meatotomy not only to allow introduction of cystoscope, but in the hope that the contracted meatus was the cause of irritation inducing masturbation Through the cystoscope the gum was seen doubled on itself in the form of a horseshoe In the absence of operating cystoscope perineal section was performed and the gum delivered without difficulty Though the gum had been in the bladder for thirty five days there was no incrustation.

STARLING S. WILCOX, Columbus, Ohio.

HAT-PIN IN THE MALE URETHRA

To the Editor—I wish to report another case of a hat-pin in the male urethra I was consulted by W E, aged 57, who had inserted a six inch hat pin in his urethra and it had escaped from his grasp and the point was imbedded in the urethra about one inch from the meatus I moved it by grasping the hat-pin with a pair of common hemostat forceps, pushing it back till the point was disengaged, then lifting the point of the pin between the blades of the forceps it was removed with no further injury to the urethra M P. MESSENGER, M D, Oakfield, N. Y.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U S Army, for the week ended June 12, 1909:

Bispham, William N, major, ordered from San Francisco to Fort Leavenworth, Kan, for duty at the U S. Military Prison

Lamble, John S, Jr, 1st lieut, granted leave of absence for 16 days

Blanchard, Robert M capt, ordered to duty with troops from Fort Sheridan, Ill, at Toledo, O, military tournament, July 5 to 10.

Pipes, Henry F, capt, granted leave of absence for 1 month

LaGarde, Louis A, lieut-col, when relieved at Denver, will proceed to Washington, D C, for temporary duty at the Army Medical School

Russell, Frederick F, major, granted leave of absence for 1 month, 15 days

Christie, Arthur C, 1st lieut, granted leave of absence for 1 month, on arrival in the United States

Gilchrist, Harry L, major, granted leave of absence for 1 month, about June 20

Freeman, Paul L, capt, ordered from Fort Riley, Kan, to Fort Leavenworth, Kan, for temporary duty, about July 1

Howell, Park, capt, relieved from duty at the Army General Hospital, Fort Bayard, N M, and ordered to Fort Huachuca, Ariz, for duty

Hoff, John Van R, col, granted leave of absence for 7 days

Baker, Frank C, major, when relieved from duty at Fort Oglethorpe, Ga, will proceed to Fort Moultrie, S C, for duty.

Hartsock, Frederick M, major, relieved from further duty at Fort Meade, S. D, will proceed at the expiration of his present leave of absence to Fort Wayne, Mich, for duty

Conzelmann, Fred J, 1st lieut, M R C, relieved from duty at Fort Williams, Me, will proceed to Fort Caswell, N C., for duty.

McPheeters, Samuel B, 1st lieut, M R C, honorably discharged from the service of the United States, his services being no longer required

Suggs, Frank, 1st lieut, M R C, ordered from Fort Niagara, N. Y, to Fort Strong, Mass, for temporary duty.

Kerr, Robert W, 1st lieut, M R C, granted leave of absence for 10 days

Hayne, James A, 1st lieut, M R C, ordered to active duty. Will proceed to Fort Assiniboine, Mont, for duty.

Brown, Polk D, 1st lieut, M R C, ordered to Fort Clark, Texas, to march with troops to Fort Sam Houston, Texas.

Dunbar, Lee R, 1st lieut, M. R C, granted leave of absence for 10 days.

Fronk, Clarence D, 1st lieut, M. R C, granted leave of absence for 10 days

Goldthwaite, Ralph H, 1st lieut, M. R C, granted leave of absence for 10 days

Hill, Eben C, 1st lieut, M R C, granted leave of absence for 6 days

Leary, Thomas J, 1st lieut, M R. C, granted leave of absence for 10 days

Mueller, Armin, 1st lieut, M R C, granted leave of absence for 14 days

Shields, William S, 1st lieut, M R C, granted leave of absence for 10 days

Heath, George D, Jr, 1st lieut, M R C, granted leave of absence for 10 days

McDiarmid, Norman L, 1st lieut, M R C, granted leave of absence for 10 days

Smith, William H, 1st lieut, M R. C, granted leave of absence for 14 days.

Snow, Corydon G., 1st lieut., M. R. C., granted leave of absence for five days.

Waring, John B. H., 1st lieut., M. R. C., granted leave of absence for 7 days.

Bastion, Joseph E., 1st lieut., M. R. C., ordered to duty with troops marching from Fort D. A. Russell, Wyo., to Fort Robinson, Neb.

Garcia, Leon C., 1st lieut., M. R. C., granted leave of absence for 15 days.

Stayer, Morrison C., 1st lieut., M. R. C., granted leave of absence for 10 days.

Slater, Ernest F., 1st lieut., M. R. C., relieved from duty at Madison Barracks, N. Y.; will proceed to Fort Adams, R. I., for duty.

Davis, Addison D., 1st lieut., M. R. C., granted leave of absence for 8 days.

Bierbower, Henry C., 1st lieut., M. R. C., granted leave of absence for 2 months, when relieved from duty in the Philippines Division.

Hasseltine, Hermon E., 1st lieut., M. R. C., granted leave of absence for 14 days.

Mount, James R., 1st lieut., M. R. C., granted an extension of 10 days to his leave of absence.

Baker, Charles L., 1st lieut., M. R. C., relieved from duty at Fort Huachuca, Ariz.; will proceed to the Presidio of San Francisco, Cal., for duty.

Foster, George B., Jr., 1st lieut., M. R. C., ordered from Fort Totten, N. Y., to Fort Strong, Mass., for temporary duty.

Griswold, W. Church, 1st lieut., M. R. C., relieved from duty at Fort Du Pont, Del.; will proceed to Fort Oglethorpe, Ga., for duty.

Murray, Wilson, 1st lieut., M. R. C., ordered from Fort William Henry Harrison, Mont., to Fort Yellowstone, Wyo., for temporary duty.

Kearny, Richard A., 1st lieut., M. R. C., honorably discharged from the service of the United States, his services being no longer required.

Holmes, Thomas G., 1st lieut., M. R. C., relieved from duty in the Philippines Division; will proceed to San Francisco, and thence to his home, Detroit, Mich., for orders.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ended June 12, 1909:

The following officers have been detached from the Naval Medical School, Washington, D. C., and ordered as follows:

Bell, W. H., surgeon, Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

Kennedy, R. M., surgeon, home and granted leave for 1 month.

Orvis, R. T., surgeon, to duty at the Naval Hospital, Navy Yard, New York.

Ledbetter, R. E., surgeon, to the Naval Academy, Annapolis, Md.

Murphy, J. F., P. A. surgeon, home to wait orders.

Smith, C. G., P. A. surgeon, to duty at the Naval Hospital, Norfolk, Va.

Wheeler, L. H., P. A. surgeon, to the *Hancock*.

Rodman, S. S., P. A. surgeon, to examination for promotion and then to wait orders.

Strite, C. E., asst.-surgeon, to Naval Recruiting Station, Baltimore.

Robnett, A. H., Cohn, I. F., Reed, E. U., Eytinge, E. O. J., Woods, E. L., Brooks, F. H., Munger, C. B., and Olson, G. M., asst.-surgeons, to examination for promotion and then to wait orders.

Foster, T. G., asst.-surgeon, to duty at the Naval Prison, Portsmouth, N. H.

Blackwood, N. J., surgeon, to the Navy Yard, Washington, D. C.

Brown, E. W., asst.-surgeon, to the *Vermont*.

Riddick, W. J., acting asst.-surgeon, to the Navy Yard, Charleston, S. C.

Trotter, C. E., acting asst.-surgeon, ordered to duty at the Naval Hospital, Portsmouth, N. H.

Jenkins, H. E., acting asst.-surgeon, ordered to duty at the Naval Hospital, Norfolk, Va.

Cecil, A. B., acting asst.-surgeon, ordered to duty at the Naval Hospital, New York.

Bass, J. A., acting asst.-surgeon, ordered to duty at the Naval Hospital, Naval Home, Philadelphia.

Walton, D. C., ordered to duty at the Naval Hospital, Norfolk, Va.

DeValin, C. M., surgeon, detached from the Navy Yard, Washington, D. C., and ordered to the Marine Recruiting Station, Philadelphia.

Whitmore, G. B., asst.-surgeon, detached from the Naval Recruiting Station, Baltimore, and ordered to the *Wisconsin*.

Traynor, J. P., P. A. surgeon, detached from the *Georgia* and ordered to the Navy Yard, Boston.

Moran, C. L., asst.-surgeon, detached from the Navy Yard, Boston, and ordered to the *Georgia*.

Cuthbertson, R., asst.-surgeon detached from duty at the Naval Hospital, Mare Island, Cal., and ordered to the *West Virginia*.

Raison, T. W., asst.-surgeon, detached from duty on board the *West Virginia* and ordered to the Naval Hospital, Mare Island, Cal.

Smith, F. W., asst.-surgeon, detached from the *Wisconsin* and resignation accepted, to take effect June 15, 1909.

Peck, A. E., P. A. surgeon, detached from the Naval Medical School, Washington, D. C., and ordered to examination for promotion and then to wait orders.

Smith, C. G., P. A. surgeon, orders of June 4, to duty at the Naval Hospital, Norfolk, Va., revoked; detached from the Naval Medical School, Washington, D. C., and ordered to examination for promotion and then to wait orders.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended June 9, 1909:

Bailhache, P. H., surgeon, granted 7 days' leave of absence from June 8, 1909, under paragraph 189, Service Regulations.

Gwyn, M. K., P. A. surgeon, granted 10 days' leave of absence from June 11, 1909.

Long, J. D., P. A. surgeon, granted 14 days' leave of absence from June 1, 1909.

Trask, J. W., P. A. surgeon, granted 2 days' leave of absence from June 8, 1909.

Spratt, R. D., P. A. surgeon, granted 20 days' leave of absence from June 2, 1909.

Bready, J. E., acting asst.-surgeon, granted 3 days' leave of absence from June 17, 1909.

Browne, R. W., acting asst.-surgeon, granted 5 days' leave of absence from June 7, 1909, under paragraph 210, Service Regulations.

Gregory, George A., acting asst.-surgeon, leave granted May 3, 1909, for 7 days from May 4, 1909, amended to read 5 days from May 4, 1909.

Hughes, Charles W., acting asst.-surgeon, granted 15 days' leave of absence from June 5, 1909.

Onuf, B., acting asst.-surgeon, granted 4 days' leave of absence from May 26, 1909, under paragraph 210, Service Regulations.

Rodman, J. C., acting asst.-surgeon, granted 7 days' leave of absence from June 8, 1909.

Schwartz, Louis, acting asst.-surgeon, granted 2 days' leave of absence from May 18, 1909, under paragraph 210, Service Regulations.

Simonson, G. T., acting asst.-surgeon, granted 2 days' leave of absence from June 8, 1909.

Slamberg, N. L. A. K., acting asst.-surgeon, granted 30 days' leave of absence from May 27, 1909.

Thornton, M. J., acting asst.-surgeon, granted 6 days' leave of absence from May 18, 1909, under paragraph 210, Service Regulations.

Walker, T. Dyson, acting asst.-surgeon, granted 14 days' leave of absence from June 2, 1909.

Gibson, R. H., pharmacist, granted 11 days' leave of absence from June 8, 1909.

Scott, E. B., pharmacist, granted 6 days' leave of absence from June 14, 1909.

Troxler, R. F., pharmacist, granted 1 day's leave of absence in May, 1909, under paragraph 210, Service Regulations.

Van Ness, George I., Jr., pharmacist, granted 30 days' leave of absence from June 10, 1909, without pay.

Megaw, H., pharmacist, granted 1 day's leave of absence, June 1, 1909, under paragraph 191, Service Regulations.

Stump, F. A., pharmacist, leave granted May 11, 1909, for 30 days from May 15, 1909, amended to read 30 days from May 27, 1909.

BOARD CONVENED

Board of medical officers convened to meet at the Bureau June 14, 1909, for the examination of candidates for admission to the service. Detail for the board: Surgeon L. L. Williams, chairman; P. A. Surgeon John McMullen; P. A. Surgeon A. M. Stimson, recorder. June 5, 1909.

APPOINTMENT

Dr. Edward G. Whipple appointed an acting asst.-surgeon for duty at Malone, N. Y. June 8, 1909.

RESIGNATION

Pharmacist R. H. Gibson resigned, to take effect June 18, 1909.

Health Reports

The following cases of smallpox, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended June 11, 1909:

SMALLPOX—UNITED STATES

Alabama: Birmingham, May 15-22, 1 case.

California: San Francisco: May 15-22, 4 cases.

District of Columbia: Washington, May 22-29, 1 case.

Georgia: Macon, May 16-30, 13 cases.

Illinois: Chicago, May 22-29, 2 cases, 1 death; Danville, May 23-30, 5 cases; Springfield, May 21-28, 1 case.

Indiana: Indianapolis, May 23-30, 1 case; South Bend, May 15-29, 7 cases.

Iowa: Cedar Rapids, May 1-31, 3 cases; Davenport, May 23-30, 2 cases.

Kansas: Kansas City, May 15-29, 7 cases; Wichita, 11 cases.

Kentucky: Lexington, May 15-29, 3 cases.

Louisiana: New Orleans, May 15-29, 14 cases.

Maine: Van Buren, May 15-22, 3 cases.

Massachusetts: Northfield, April 1-24, 2 cases.

Michigan: Grand Rapids, May 15-29, 8 cases; Saginaw, May 8-22, 6 cases.

Minnesota: Duluth, May 20-27, 2 cases.

Missouri: Kansas City, May 22-29, 2 cases; Neosho, March 15, 6 cases; St. Louis, May 22-27, 1 case.

Montana: Butte, May 20-27, 1 case.

Ohio: Ashtabula, May 22-29, 1 case, 1 death; Cincinnati, May 14-27, 11 cases; Columbus, May 22-29, 1 case.

Tennessee: Nashville, May 22-29, 3 cases.

Texas: Fort Worth, May 1-26, 20 cases, 1 death; Galveston, May 21-28, 1 case; San Antonio, May 8-29, 13 cases, 1 death.

Utah: State of, April 1-30, 81 cases.

Washington: Spokane, May 8-22, 15 cases.

West Virginia: Wheeling, May 22-29, 1 case.

SMALLPOX—INSULAR

Philippine Islands: Manila, April 17-24, 13 cases.

SMALLPOX—FOREIGN

Brazil: Bahia, April 16-30, 5 cases, 1 death.

Canada: Halifax, May 15-22, 4 cases.

China: Amoy, April 17-24, present; Canton, March 27-April 17, 20 cases; Tientsin, April 17-May 1, 8 cases.

Egypt: Cairo, April 29-May 6, 4 cases, 9 deaths.

Great Britain: Bristol, May 8-15, 2 cases; Cardiff, April 24-May 1, 1 death.

India: Bombay, April 27-May 4, 17 deaths; Calcutta, April 19-24, 131 deaths; Madras, April 24-31, 5 deaths; Rangoon, April 17-24, 2 deaths.

Japan: Formosa, April 24-May 1, 1 case.

Java: Batavia, April 17-24, 4 cases, 1 death.

Mexico: Chihuahua, May 9-23, 2 cases; Mexico City, March 27-April 17, 93 deaths;; Monterey, May 16-23, 3 deaths.

Russia: Moscow, April 24-May 8, 46 cases, 29 deaths; Odessa, May 1-8, 1 case; Riga, May 8-15, 2 cases; St. Petersburg, April 17-24, 22 cases, 7 deaths.
Siam: Bangkok, April 1-30, 6 cases, 2 deaths.
Spain: Almeira, April 1-30, 6 deaths; Barcelona, May 10-17, 6 deaths; Valencia, May 1-8, 8 cases, 1 death.
Uruguay: Montevideo, March 1-31, 8 deaths.

CHOLERA—INSULAR

Philippine Islands: Provinces, April 17-24, 17 cases, 30 deaths.

CHOLERA—FOREIGN

India: Bombay, April 27-May 4, 18 deaths; Calcutta, April 17-24, 98 deaths.
Siam: Bangkok, April 1-30, 1 case, 1 death.
Straits Settlements: Singapore, April 8-24, 5 deaths.

PLAGUE

Azores: Fayal, March 1-31, present; Terceira, April 1-30, 2 cases, 1 death.
China: Amoy, April 17-24, present; Canton, April 3-17, 20 cases, 13 deaths; Chung Poo, April 26, epidemic.
India: April 17-24, 4,681 cases, 4,007 deaths; Bombay, April 27-May 4, 430 deaths; Calcutta, April 17-24, 117 deaths; Rangoon, 24 deaths.
Japan: Formosa, April 10-May 1, 209 cases, 173 deaths; Osaka, April 25-May 1, 1 case, 1 death; Yokahama, May 15-18, 8 cases, 2 deaths.
Persia: Bahrein, May 12, 3 cases, 2 deaths.
Siam: Bangkok, April 1-30, 3 cases, 1 death.
Straits Settlements: Singapore, May 18-24, 1 death.
Trinidad: May 27, 1 death.
Venezuela: Caracas, May 20-June 3, 6 cases, 3 deaths.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

ARIZONA: Phoenix, July 5-6. Sec., Dr. Ancil Martin.
ARKANSAS: Homeopathic, Little Rock, July 13. Sec., Dr. P. C. Williams, Texarkana.
ARKANSAS: Regular, Little Rock, July 13. Sec., Dr. F. T. Murphy, Brinkley.
COLORADO: Denver, July 6. Sec., Dr. S. D. VanMeter, 1723 Tremont Place
CONNECTICUT: Regular, New Haven, July 13-14. Sec., Dr. Charles A. Tuttle, 196 York St.; Homeopathic, New Haven, July 13. Sec., Dr. Edwin C. M. Hall, 82 Grand Ave.; Eclectic, New Haven, July 13. Sec., Dr. T. S. Hodge, 17 Main St., Torrington.
DISTRICT OF COLUMBIA: Washington, July 13-16. Sec., Dr. George C. Ober, 210 B St., S. E.
INDIANA: 120 State House, Indianapolis, July 13-15. Sec., Dr. W. T. Gott.
IOWA: Des Moines, June 1-3 and June 22-24; Iowa City, June 8-10. Sec., Dr. Louis A. Thomas, Des Moines.
KENTUCKY: Louisville, July 6. Sec., Dr. J. N. McCormack, Bowling Green.
MAINE: State House, Augusta, July 13-14. Sec., Dr. Frank W. Searle, 806 Congress St., Portland.
MASSACHUSETTS: State House, Boston, July 13-15. Sec., Dr. Edwin B. Harvey, Room 159, State House.
NEW HAMPSHIRE: Concord, June 29-30. Regent, Mr. H. C. Morrison.
NEW MEXICO: Santa Fe, July 12. Sec., Dr. J. A. Massie.
NEW YORK: Albany, June 22-25. Chief of Examinations Division, Dr. Charles F. Wheelock, Albany.
NORTH DAKOTA: Grand Forks, July 6-8. Sec., Dr. H. M. Wheeler.
OKLAHOMA: Guthrie, July 13. Sec., Dr. Frank P. Davis, Enid.
OREGON: Portland, July 6. Sec., Dr. R. C. Coffey.
PENNSYLVANIA: Philadelphia and Pittsburg, June 22-25. Sec., Mr. Nathan C. Schaeffer, Harrisburg.
RHODE ISLAND: Room 313, State House, Providence, July 1-2. Sec., Dr. Gardner T. Swarts, 315 State House.
SOUTH DAKOTA: Watertown, July 14-15. Sec., Dr. H. E. McNutt, Aberdeen.
TEXAS: Cleburne, June 22-24. Sec., Dr. M. E. Daniel, Honey Grove.
UTAH: Salt Lake City, July 5. Sec., Dr. G. F. Harding, 310 Templeton Bldg.
VERMONT: Burlington, July 13-15. Sec., Dr. W. Scott Nay, Underhill.
VIRGINIA: Richmond, June 22-25. Sec., Dr. R. S. Martin, Stuart.
WASHINGTON: Seattle, July 6-8. Sec., Dr. Kenneth B. Turner, Walker Bldg.
WEST VIRGINIA: Charleston, July 13-15. Sec., Dr. H. A. Barbee, Point Pleasant.
WISCONSIN: Madison, July 13-15. Sec., Dr. J. V. Stevens, Jefferson.
WYOMING: Laramie, June 23-25. Sec., Dr. S. B. Miller.

Higher Entrance Requirements Adopted

We are informed that the faculty of University Medical College, Kansas City, voted that, beginning with the college session of 1910-11, in addition to a four-year high school education, a year's college work be required to include courses in physics, chemistry, biology and foreign language. Only about ten of the better class of medical colleges remain which have not adopted this advanced standard.

Marriages

WILLIAM A. STEEL, M.D., to Miss Frieda Spierling, both of Philadelphia, June 4.

HENRY A. STRECKER, M.D., to Miss Nellie M. Carrol, both of Philadelphia, June 2.

HENRY C. DOOLING, M.D., to Miss Nellie S. Essler, both of Clayton, N. J., June 3.

BURTON G. MCGARRY, M.D., Fenton, Mich., to Miss Hazel J. Brown, of Howell, Mich., June 3.

EARLE G. SHAFFER, M.D., Ely, Nev., to Miss Tina Hartnagle, of Denver, at Golden, Colo., May 29.

EDWARD MELLUS, M.D., West Newton, Mass., to Miss Marion Heath, of Augusta, Maine, June 1.

SPENCER P. BASS, M.D., Tarboro, N. C., to Miss Ethel Denver Pike, at Leesburg, Va., May 26.

ARTHUR HUBERT LONGSTREET, M.D., to Mrs. Miriam Annette Kent, both of Brooklyn, N. Y., May 26.

ALBERT E. STRIPP, M.D., Laurel, Mont., to Miss Montana Mildy Tschudy of Billings, Mont., June 3.

JAMES EDWARD BENSON, M.D., Cockeysville, Md., to Miss Laura Taylor, at Hagerstown, Md., June 1.

ARTHUR G. VADEN, M.D., Matthews, Va., to Miss Mabel L. Anderton, in Middlesex county, Va., June 3.

HARRY M. ROBINSON, M.D., New York City, to Miss Verna Beatrice Wilson, at Violetville, Md., May 25.

Deaths

Richard E. Haughton, M.D. Western Reserve University, Cleveland, 1853; Jefferson Medical College, Philadelphia, 1861; since 1857 a member of the American Medical Association, and for many years a member of the Mississippi Valley Medical Assocation; in 1873, professor of descriptive and surgical anatomy in Indiana Medical College; in 1874, made professor of physiology in the College of Physicians and Surgeons, Indianapolis, holding this chair for four years; in 1879, one of the founders of, and for fifteen years a professor in the Central College of Physicians and Surgeons, Indianapolis; one of the oldest and best known practitioners of Indiana; died at his home in Richmond, June 4, from chronic bronchitis, aged 81. Wayne County Medical Society, at a special meeting, held June 4, took action on the death of Dr. Haughton, and the society as a body attended the funeral two days later.

Valery O. Schayot, M.D. Tulane University, New Orleans, 1891; of Pointe a la Hache; a member of the Louisiana State Medical Society; from 1897 to 1900, coroner of Plaquemines parish; and from that time on parish health officer, president of the parish board of health, and secretary of the parish medical society; died in the New Orleans Sanitarium, May 29, from pneumonia, aged 39.

Joseph Leo De Varona, M.D. Cornell University Medical College, New York City, 1905; physician to the genitourinary department of Williamsburg Hospital; assistant visiting cystoscopist to St. Katherine's Hospital, and a member of the staff of St. Vincent's Hospital, Brooklyn; died at the home of his sister in Newark, N. J., May 29, aged 28.

Pliny Rand Watts, M.D. New York Homeopathic Medical College, New York City, 1887; once president of the California State Homeopathic Medical Society; president of, and surgeon to, the Sutter Heights Hospital, Sacramento, Cal.; died in the hospital, June 1, four days after an operation for appendicitis, aged 45.

William Riley Blakeslee, M.D. University of Pennsylvania, Philadelphia, 1853; surgeon of the One Hundred and Fifteenth Pennsylvania Volunteer Infantry during the Civil War; and local surgeon for the Pennsylvania Railroad; died at his home in Coatesville, Pa., June 3, from cerebral hemorrhage, aged 86.

Ernest A. von Boeckh, M.D. Atlanta College of Physicians and Surgeons, 1906; formerly in the hospital corps of the Army with service in the Philippine Islands; for two years an interne in Grady Hospital, Atlanta; died at his home in that city, from pleurisy, June 2, aged 31.

Joseph F. Cole, M.D. Atlanta Medical College, 1875; a member of the American Medical Association; secretary of the Carroll County (Ga.) Medical Society, secretary of the board of health and sanitary inspector of Carrollton; died suddenly at his home, June 1, aged 57.

John J. Schubert, M.D. Rush Medical College, Chicago, 1888; of Kankakee, Ill.; a member of the Illinois State Medical Society; in 1880, a member of the executive committee of the Illinois Pharmaceutical Association; died in the Presbyterian Hospital, Chicago, June 2, from cirrhosis of the liver, aged 49.

William Judson Riggs, M.D. Jefferson Medical College, Philadelphia, 1872; of Pittsburg; assistant surgeon, U. S. Navy, 1873 to 1876; a member of the Medical Society of the State of Pennsylvania; died at the home of his daughter in Cambridge Springs, Pa., May 31, from heart disease, aged 59.

Ryland D. Pratt, M.D. University of Louisville (Ky.), 1882; of Shelbyville, Ky.; a member of the American Medical Association; referee for Shelby county; and local surgeon for the Chesapeake and Ohio Railway; died in Mercy Hospital, Chicago, June 1, after a surgical operation, aged 49.

John M. Huffman, M.D. Jefferson Medical College, Philadelphia, 1870; a veteran of the Civil War; for many years a practitioner of Savannah, Mo., and later a resident of St. Joseph; died suddenly in Long Beach, Cal., May 25, from heart disease, aged 66.

Charles Ludwig Koch, M.D. Rush Medical College, Chicago, 1877; Chicago Homeopathic Medical College, 1878; of Quincy, Ill.; died suddenly, May 29, at a sanitarium in St. Louis, while being prepared for an operation, aged 50.

James Barney Welsh, M.D. Medical College of Ohio, Cincinnati, 1858; for many years U. S. pension examining surgeon for Preble county, Ohio, and a member of the board of education; died at his home in Eaton, May 29, aged 88.

Cornelius Robert Reagan, M.D. New York University, New York City, 1893; local surgeon for the New York Central Railroad; died suddenly at his home in North Tonawanda, N. Y., June 1, from angina pectoris, aged 45.

Elizabeth E. Francis, M.D. Homeopathic Medical College of St. Louis, Mo., 1898; of St. Louis; died May 31, from the effect of carbolic acid, said to have been self-administered with suicidal intent, aged 48.

Richard Mott Durbin, M.D. Cleveland College of Physicians and Surgeons, 1883; of Woodville, Ohio, and once mayor of that city; died near Hessville, Ohio, May 30, from cancer of the esophagus, aged 52.

Harry Annis Hill, M.D. University of Pennsylvania, Philadelphia, 1901; of Bethlehem, Pa.; died in St. Luke's Hospital in that city, April 23, from a self-inflicted gunshot wound of the head, aged 30.

James Gardner Laing, M.D. Berkshire Medical College, Pittsfield, Mass., 1854; Albany (N. Y.) Medical College, 1855; died at his home in Dallas, Pa., April 24, from chronic nephritis, aged 78.

Joseph Ulysses Roach, M.D. Tennessee Medical College, Knoxville, 1898; of Lafolette, Tenn.; died in the Lincoln Memorial Hospital, Knoxville, June 3, after a surgical operation, aged 32.

Silas M. Gleason, M.D. Hahnemann Medical College, Chicago, 1880; a member of the American Medical Association; died at his home in Ionia, Mich., May 31, from nephritis, aged 53.

W. E. Pearson, M.D. Medical College of the State of South Carolina, Charleston, 1859; of Scooba, Miss.; a Confederate veteran; died in Meriden, May 31, from cerebral hemorrhage, aged 73.

Elizabeth Marshall Knell, M.D. Homeopathic Medical College of Missouri, St. Louis, 1866; formerly of Baltimore; died at her home in Slatehill, Pa., June 4, from septicemia, aged 54.

George Albert Moulton, M.D. Rush Medical College, Chicago, 1885; a member of the Colorado State Medical Society; died at his home in Alma, May 7, from influenza, aged 49.

Armeritus B. Bixby, M.D. Castleton (Vt.) Medical College, 1858; a surgeon during the Civil War; died at his home in Poultney, Vt., May 3, from chronic pyelitis, aged 74.

Philip B. Tolford, M.D. Starling Medical College, Columbia, 1898; of Pittsford, Mich.; died in Sylvania, Ohio, May 28, after an operation for appendiceal abscess, aged 35.

Edward Franklin Gage, M.D. Harvard Medical School, Boston, 1893; a member of the Massachusetts Medical Society; died at his home in Winthrop, May 31, aged 46.

Alexander Fairley, M.D. Tulane University, New Orleans, 1876; a member of the Mississippi State Medical Association; died at his home in Mount Olive, May 29.

Richard Henry Hudson, one of the oldest residents of Sierre Madre, Cal., died at his home Nov. 16, 1908, from disease of the stomach and heart, aged 68.

Frank McClintock Macklin, M.D. Columbus (Ohio) Medical College, 1890; died at his home in Tarlton, Ohio, May 31, after an operation for appendicitis, aged 43.

Harriette Daggett Beebe, M.D. Pulte Medical College, Cincinnati, 1883; died at her home in Minneapolis, Minn., Nov. 19, 1908, from nephritis, aged 68.

Orin C. McCracken, a pioneer practitioner of California; died at his home in Oakland, April 2, from senile debility and chronic nephritis, aged 95.

John M. Kitchen, M.D. Willamette University, Salem, Ore., 1877; a Confederate veteran; died at his home in Stayton, Ore., March 16, aged 66.

Moses Livingston Allen, M.D. Western Reserve University, Cleveland, 1888; died at his home in Cleveland, June 3, from influenza, aged 55.

George Inglis, M.D. Pennsylvania Medical College, Philadelphia; of Pittsburg; died in Denver, Colo., June 5, from pneumonia, aged 78.

John C. Outhet, M.D. Barnes Medical College, St. Louis, 1899; of Chicago; died in San Mateo, Cal., June 7, from pneumonia, aged 34.

William M. Cunningham, M.D. Tulane University, New Orleans, 1878; died at his home in Bastrop, Texas, May 24, aged 59.

George W. McMurray, M.D. University of Nashville, Tenn., 1858; died suddenly at his home in Hurricane, Tenn., May 21, aged 70.

William J. Bricker (license, Ill., 1878, years of practice); died at his home near Makanda, Ill., February 12, aged 67.

Eugene J. Setze, M.D. Medical College of Georgia, Augusta, 1852; died at his home in Marietta, Ga., May 30, aged 80.

Society Proceedings

COMING MEETINGS

American Ophthalmological Assn., New London, Conn., July 14-15.
Idaho State Medical Association, Seattle, Wash., July 19.
New Jersey Medical Society, Cape May, June 23-25.
Washington State Medical Association, Seattle, July 20.
Wisconsin State Medical Society, Madison, June 30-July 2.

NEW HAMPSHIRE MEDICAL ASSOCIATION

Annual Meeting, held at Concord, May 12-14, 1909

(Continued from page 1951)

Development of Milk Laboratories, Foodstuffs They Can Provide, and Principles of Infant Feeding

Dr. Thomas Morgan Rotch, Boston: There has been little real progress in infant feeding the last four or five years. We never have accomplished in so-called artificial feeding what has been done by Nature's process of feeding from the human breast, but there is no question that in many cases human breast milk is exceedingly bad for young infants. The baby is fed on routine mixtures as a rule, with less scientific knowledge, less real practical knowledge, and almost with ignorance, to a greater extent than occurs in any other branch of our profession. There is no rule for feeding babies. During the first year of life each individual differs from another. A large amount of the practical knowledge has come from the farmers, and the only way is to learn from all who can give it to us. The profession at large is very far behind what it ought to be. Cheap milk is a dangerous factor. There are eighteen model farms in this country and one in London in connection with the laboratories in large cities. On these farms absolute care is taken of the milk, the cow is kept as cleanly as possible, the pail is protected with a top over it, and the milkers are absolutely clean. I do not believe in milking machines; I think the human hand produces better milk than any machine. Cows should not be fed before milking as dust arises. All physicians should see that the

milk is brought in almost direct to the consumer. In one case a baby, the child of wealthy parents, was sent across the water. The mother refused to nurse it. It was fed first in Boston, then went to New York to take the steamer. It carried with it about 200 gallons of milk heated twice to 155 degrees, which went through the Straits of Gibraltar, to Southern France, and was still used after arriving there. If a baby does not digest fat well the digestion of the baby must be fitted to take it, and we make a combination of food fitted for that special baby. Not one man in a thousand can tell you why he gives barley water for diarrhea. It is simply a little peculiarity of the human race. If one combines the elements and knows how to use them he will make a tremendous stride in infant feeding. In Stockholm for a half century babies afflicted with diarrhea have been given buttermilk. America has now taken that matter up and is meeting with great success. In fact, all other countries are twenty years behind us in the matter of infant feeding. We have the best farms in the world, the best research laboratories for milk, and have young American men who come to the front and are not going to be kept down by tradition.

DISCUSSION

MR. C. D. HOWARD, Concord: The whole matter of artificial feeding is still in its infancy. "Patent" foods should be regarded as not only expensive but very poor substitutes. Until the milk-laboratory becomes a more generally established institution the average physician will be compelled to figure the thing out as best he can. In regard to the various brands of milk sugar found for sale in the stores, after making an examination of them I find that the better known brands, those selling at a somewhat higher price, are no better in regard to adulteration than the others. In fact, the brand that sells at the highest price—especially recommended by the packers as being an article of exceptional excellence—was found to be the poorest in the lot.

Milk and Disease

DR. H. W. N. BENNETT, Manchester: Milk is a constant factor in our health, a means of preventing disease, of nourishing patients through acute illness, and is especially important to infants and invalids. We buy milk in the belief that we are getting pure food, but too often receive a mixture of fecal contamination and virulent bacterial poisons, loaded with potential death. If milk were a transparent fluid it would show evidence of its condition to the naked eye. A similar amount of bacterial growth in broth, gelatin, beer, jelly, etc., would result in its condemnation even by the untrained eye. That the milk supply is responsible for a large proportion of the infantile death rate is shown by the decrease in the death rate when attention is paid to milk. In childhood, contagion in two important acute diseases, diphtheria and scarlet fever, is conveyed by milk. When thus conveyed they are epidemic. To the epidemic diseases must also be added typhoid fever. Trask has compiled 179 typhoid epidemics spread by milk, 107 of which occurred in the United States. In 96 of these epidemics all patients were reported as living in houses supplied with the infected milk.

DISCUSSION

DR. GEORGE C. WILKINS, Manchester: The remedy, or rather the prevention of the infection of milk by bacteria must come from a cleaner and more intelligent handling of the milk at the dairy. Two methods can be used for improving this condition: an efficient system of dairy inspection under the State Board of Health, not only into the methods of handling but into the health of the cows and employés; and the placing of added commercial value on clean milk.

DR. H. W. N. BENNETT, Manchester: I have found several farmers trying to sterilize the milking pails by pouring water brought from the kitchen, from one to another, and that water when it starts at the house would be 212° F., the first pail 165°, second 147°, third 127°; and the lowest point at which hot water will kill bacteria is 150° F.

(To be continued)

ASSOCIATION OF AMERICAN PHYSICIANS

Twenty-fourth Annual Meeting, held at Washington, D. C., May 11-12, 1909

(Concluded from page 1959)

Changes in Metabolism Produced by Exclusion of Pancreatic Juice from Intestines

DRS. J. H. PRATT, P. D. LAMSON and H. K. MARKS, Boston: The head of the pancreas was separated from the duodenum, the ducts tied and a portion of the great omentum placed between the pancreas and duodenum. In a dog in which the ducts were tied, but no barrier of living tissue placed between the cut ends and intestinal wall, a small fistulous tract formed and pancreatic juice entered the intestines. Failure to exclude all the pancreatic secretion explains the results obtained by recent investigators who found no marked disturbance of metabolism after ligating the ducts. In all four dogs of the present series there was great interference with the absorption of nitrogen and fat. There was marked loss of weight. The stools were very large. The splitting of the fat was normal.

DISCUSSION

DR. W. G. MACCALLUM, Baltimore: Dr. Pratt tells me that there was some disturbance of carbohydrate metabolism in these cases. It is well known that ligation of the pancreatic duct or its obstruction finally leads to atrophy of the secreting portion of the pancreas, whereas the islands of Langerhans remain intact, and this is the basis of the dispute. Opie and others have assumed, and apparently proved, that the islands of Langerhans alone are responsible for the maintenance of proper carbohydrate metabolism, whereas others think that this is not yet proved, but that in all probability all the pancreatic tissue is necessary.

DR. J. H. PRATT: I have tested the tolerance for carbohydrates in two dogs that survived operation for two months or more. I found that, while a healthy dog would take 75 grams of glucose with a non-carbohydrate diet before any glycosuria developed, in my two dogs a marked glycosuria developed when 35 grams of glucose was given. I found no increase of tolerance as time passed. My observations show that in the first case that came to autopsy two months after the operation, the pancreas, which had formerly been 10 centimeters long, was nothing but a shriveled, firm bit of scar tissue about 3 centimeters long. Cross-sections showed some scattered areas of epithelial cells between wide bands of connective tissue, and not a trace of the islands of Langerhans could be found.

Exophthalmos in Chronic Nephritis

DR. L. F. BARKER, Baltimore: The occurrence of exophthalmos in nephritis is not mentioned in any text-books, and at Johns Hopkins Hospital recently we have done some special work to determine in what proportion of cases it occurs. Out of 33 cases of chronic nephritis in the wards that have been studied since January 1 of this year, 16 presented this condition. This is more than could be merely coincidences. The degree of exophthalmos varied apparently with the degree of uremic poisoning, though not in all cases. It was rather striking that retinitis is often associated with the exophthalmos. There was hypertension in 12 out of the 16 cases. It is our opinion that the intoxication leads to a tonic contraction of the muscle fibers passing from the septum orbitale to the eye, and that this causes the exophthalmos.

DISCUSSION

DR. WILLIAM OSLER, Oxford, England: These are all cases with high blood pressure, and the question is whether that may not have some association, because we know in the inequality of the pupils in aneurism it is largely a matter, not as we had supposed of the sympathetic irritation, but of the blood pressure.

DR. W. S. THAYER, Baltimore: I can heartily confirm all that Dr. Barker has said. I have often been helped as I entered the sick room by noticing the slight staring expression in the eyes of the patient, which would at once suggest chronic nephritis. I had always supposed it was due to high blood pressure. I do not feel that it is a sign of importance.

Dr. James Tyson, Philadelphia: I am sorry to say that in a considerable experience in cases of chronic nephritis it has never occurred to me to observe this condition. Now, as I look back over my experience I can recall cases, but I confess it never impressed me as being a part of the symptomatology of the disease. I can not help but think that sometimes this condition must be a coincidence. Especially in the colored race the eyes are rather protuberant independently of association with any condition.

Dr. W. H. Thompson, New York: For a number of years I have directed the attention of students to the staring expression of the eyes as a very unfavorable sign in chronic nephritis. I ascribed it at that time to the immobility of the pupil, and in some of the cases undoubtedly it was so, for the pupil does not react to light.

Clinical Resemblances Between Pneumococcus and Meningococcus Infections

Dr. Robert B. Preble, Chicago: Certain phenomena occur so constantly in pneumococcus infections that I have come to regard them as the specific effects of this particular organism. These effects are acute at onset, leucocytosis, herpetic eruption usually over one or two branches of the fifth or seventh nerves and a low excretion of chlorids. None is absolutely peculiar to this organism, but the combination is peculiar, there being no other organism except the meningococcus which produces this combination. There is no reference in the literature to a low chlorid excretion in meningitis, but in the cases which I have examined I have found the excretion of chlorids low. There is also a striking similarity between the seasonal distribution of the two infections. Certain complications which we have come to associate with pneumococcus infections, such as arthritis, pleuritis, pericarditis and endocarditis, also occur in meningococcus infections. In view of these resemblances between pneumococcus and meningococcus infections, it has occurred to me that the meningococcus may be the pneumococcus with its virulence lessened.

DISCUSSION

Dr. William Osler, Oxford, England: Many of us have had brought before us the great similarity of these two diseases, and yet there are striking peculiarities and differences when we consider simply the meningitis. The pneumococcus infection is uniformly fatal. The pneumococcus meningitis is rarely, if ever, a spinal affair, whereas, as we all know, the meningococcus infection may be a spinal condition only or a cerebrospinal. Endocarditis, which is so common in pneumococcus infection, is rare in cerebrospinal fever. There is no question about the similarity in the seasonal conditions, but I think the two diseases are clinically rather sharply separated from each other—much more so than the organisms are bacteriologically.

Dr. Henry Koplik, New York: I think when we consider the entire subject the great similarity between the two infections is manifest, especially in the cerebral symptoms. The more I see of pneumonia with cerebral symptoms, the more I am impressed with the great difficulty at the outset of determining the presence or absence of a meningitis in a given case of pneumonia. We must also remember that in a pneumococcus infection of the lung, complicated with meningitis or peritonitis or endocarditis, these complications may be due to the streptococcus.

Dr. L. F. Barker, Baltimore: The term meningismus as contrasted with meningitis can not be too much emphasized, it seems to me. We all know how common it is in pneumonia, typhoid fever and similar infections to see retraction of the neck and other signs which make us suspect meningitis, and yet lumbar puncture in so many of these cases is negative. If they come to autopsy there is found no meningitis. Often these patients recover in a few days, usually without any definite signs of meningitis. I think that meningismus must be recognized as a definite clinical phenomenon, probably toxic in its origin, and not due to an actual infection of the meninges.

Dr. J. J. Kinyoun, Washington, D. C.: Has Dr. Preble made any experiments with the autolysis of the pneumococcal cultures as compared with the meningococcus? Some experiments made two or three years ago with these organisms showed that there was no autolytic toxin formed in the pneumococcus, whether the organism was of a virulent type or not, whereas it was an easy matter to obtain an autolytic toxin from the meningococcus.

Dr. Lewis A. Connor, New York: Has Dr. Preble any data bearing on the question of the chlorid excretion in other blood infections—septicemia—particularly streptococcus septicemia? In other words, is he convinced that a low chlorid excretion is a peculiarity of pneumococcus and meningococcus septicemia?

Dr. R. Preble: I have made no studies on the autolysis. A low chlorid excretion is shared by all acute infections, but there is no other infection in which the excretion of chlorids reaches so low a point—so low sometimes that the urine seems to contain practically no chlorids at all—and that peculiarity of the urine is shared by the meningococcus infection, but not by any other that I know of. I am sorry that the discussion has been on the unimportant aspects of the matter, and not on the four points of resemblance in the clinical effects.

The Present Status of the Serum Treatment of Epidemic Cerebrospinal Meningitis

Dr. Simon Flexner, New York: In the more than two years which have elapsed since the serum was first issued more than 1,000 cases of epidemic meningitis, diagnosed bacteriologically, have been treated with it. The histories of over 800 such cases have been collected, but they have not all been subjected to analysis. The last careful analysis which I made covered about 550 cases. I have contended and still contend that the real test of the serum must come at some future time when an epidemic exists, when the serum can be applied at the beginning of the disease. When the serum was perfected, the epidemic which had been raging in this country had practically ceased. In the epidemic in Scotland and Ireland about a year after the American epidemic, the introduction and use of the serum either greatly modified the disease, or the disease was on the point of turning at the time, because the results were in contrast with those which had previously existed. The mortality had been about the same as in this country, namely, 75 per cent. The introduction of the serum in Edinburgh reduced the mortality to about 40 per cent., and in Belfast to less than 30 per cent. The reports received from France are not conclusive, but are very interesting. In Netter's latest report he said he had treated up to that time 10 children under 2 years of age, of which 1 had died, while all the others recovered. Calmette reports that of 14 soldiers taken ill within a few days at the barracks, 13 recovered and 1 died. There have been two localized outbreaks in this country, one at Jefferson Barracks, Mo., and another at McKinney, Texas. At Jefferson Barracks there were 6 cases. In the first soldier to have the disease it was not recognized, and he died without any specific treatment. Subsequently, there were 5 cases. The surgeon made the diagnosis by lumbar puncture in some of the cases even before the localizing symptoms appeared, gave the serum and the patients all recovered. At McKinney, Texas, there had been 5 cases in rapid succession, in all of which the patients had died. The doctors then procured some serum, and 5 subsequent patients who received the serum all recovered. It seems from the evidence at hand that the serum is effective, at least in many cases—not in all.

DISCUSSION

Dr. A. C. Abbott, Philadelphia: Experience in Philadelphia bears out what Dr. Flexner has said with regard to the presence of an epidemic. The winter before last about 20 patients were treated with the serum, but there was not an epidemic in the city, and many of the patients came to the hospital late in the disease. Notwithstanding this, the results were better than with any other treatment tried. It is my practice to withdraw from the spinal canal the same amount of fluid I intend to inject, thus diminishing the subsequent escape of the serum from the canal.

Dr. Henry Koplik, New York: I feel that in this serum we at last have a weapon against this scourge. The results have

been especially gratifying in children under 2 years of age. Hitherto, from a clinical standpoint, physicians have felt that patients of this age were lost. If the child did recover from the meningitis, there was always left some cerebral defect. Up to the present time I have had in my service 6 babies ranging from 5 months to 2 years of age. Of these, 3 made complete recoveries.

Dr. W. H. Thompson, New York: If this serum continues to give as favorable results as we have now good reason to hope, it is indeed a boon to humanity. Some years ago in Roosevelt Hospital 30 cases occurred in my ward, and of those the first 16 patients all died except 1, and of the remaining 14 all lived except 1. The treatment was the same with all. Therefore, in order to judge the efficacy of any treatment we should wait until not only a great many cases are treated, but the time in the epidemic should be correctly noted.

Dr. Lewis A. Connor, New York: The cases treated at the Hudson Street Hospital have been of the worst type, many of them ambulance cases. I do not think, therefore, that our experience was a fair test of the treatment.

Dr. L. F. Barker, Baltimore: At Johns Hopkins Hospital about the same number of cases of meningitis were treated with the serum in one year as had been admitted to the hospital in the previous eighteen or nineteen years of the institution's existence. During these years the mortality was about 80 per cent., and the recoveries about 20 per cent. During this one year when the serum was used the mortality was only about 20 per cent., recoveries about 80 per cent. The figures were just reversed. To us it was a very striking experience, and we feel much encouraged.

Dr. James Ewing, New York: There are two problems here: Does the injection of a quantity of serum into the spinal canal reduce the mortality, and, if so, how? The first is clinical, the second belongs to the laboratory. The reports show satisfactorily that it does reduce mortality. I feel, however, that the mechanism or action of the serum is still entirely undecided. I think laboratory men as a rule are inclined to believe that the reduction in the mortality of meningitis from the use of this serum may be due to its normal bactericidal action. Dr. Flexner should accomplish something without an epidemic at reaching a conclusion if he would inoculate a certain number of subjects with normal horse serum in the same way that he does with the meningitis serum. If that could be done in 100 cases I think the laboratory men would be satisfied.

Dr. S. Flexner: I do not believe it would be ethical to inject normal horse serum so long as we could get the other serum. Personally, I would not accept the responsibility of carrying out that experiment on human beings. Experiments have been carried out on monkeys, though not on a large scale, and in them there was apparently a considerable difference. The experimental work on animals was interrupted on the supposition that the final decision would come from the application of the serum in the treatment of the disease in man.

The Cammidge Reaction in Experimental Lesions of the Pancreas

Drs. John Speese and Edward H. Goodman, Philadelphia: The Cammidge reaction is a constant feature in acute hemorrhagic pancreatitis, in mechanical injuries to the gland (crushing of the tail, partial extirpation) and in total extirpation. In certain cases of the subacute type of pancreatitis, the reaction is inconstant. The nature of the phenylhydrazin compound is not definitely established. If pentose, it is not that derived from the pentose-yeilding material of the pancreas. A positive reaction is indicative of altered carbohydrate metabolism due to disturbance of the internal secretion of the pancreas.

A Case of Scarlatina and Diphtheria Successfully Treated Without Medicine

Dr. W. H. Thompson, New York: The patient was a girl aged 5 who was first attacked with scarlatina and on the seventh day developed diphtheria. When I saw her first, in consultation, the membrane had extended over the pharynx, uvula, and into the nose, and had a very fetid odor. She was wholly unable to swallow. The further complications were abscesses in both ears, pneumonia and pleurisy on left side and persistent heart weakness with very intermittent pulse. She wholly recovered after thorough douching of the throat with two gallons of hot water every two hours. This result I regard as in keeping with my recommendation to douche the throat in every case of scarlatina from the first onset of symptoms, so as to prevent invasion by streptococci, which, in my opinion, are the main cause of the complications of both scarlatina and diphtheria.

Influence of Ductless Glands on Pancreas

Drs. Ralph Pemberton and J. Edwin Sweet, Philadelphia: The inhibition of pancreatic secretion by adrenalin is, in part at least, independent of systemic blood pressure, as shown by its persistence when the blood pressure is much below normal and by other evidence. The inhibition by extracts of pituitary and suprarenal bodies also occurs when the pancreas is stimulated by its normal excitant, hydrochloric acid in the duodenum. In dogs rendered diabetic by extirpation of the pancreas the mucosa of the duodenum remains abundant, in striking contrast to the emaciation of other tissues; and acid extracts of the mucosa are as active as, if not more so than, those from normal animals. Studies of the inhibition of pancreatic flow by adrenalin in thyroidectomized and parathyroidectomized dogs have indicated no clear departure from the normal in this regard. The evidence now at hand indicates that the suprarenal glands exercise at all times an inhibitory power on the pancreas and that on the removal of this influence by ablation, the pancreas secretes more rapidly. The agonal period of life is accompanied by an exacerbation of the normal rate of pancreatic flow.

Clinical and Experimental Observations on Adrenalin

Dr. J. T. Halsey, New Orleans: Oral administration of ordinary amounts of adrenalin does not cause changes in blood pressure or heart action. Subcutaneously administered in doses of from 1/100 to 1/40 gr. adrenalin is uncertain in its effects on the blood pressure, but usually causes a slight rise and may cause a marked rise with distinctly more forcible heart action. Given intramuscularly in this dosage it usually causes a rise in blood pressure which may be so great as to cause alarming symptoms and perhaps serious results. The initial dose in any case should be a small one, for individuals vary markedly in the degree to which they react to suprarenal active principle when administered hypodermically.

The Importance of Blood Culture in the Study of Infections of Otitic Origin

Drs. E. Libman and H. L. Celler, New York: The investigations of the blood for bacteria are of great importance to the otologist and to the clinician in the study of borderline cases. Positive findings often give the indication for important therapeutic procedures. Incidentally, the studies give the opportunity for investigation of the rapidity with which the body can get rid of a bacteremia.

Wassermann Reaction in Cardiac and Vascular Disease

Drs. Joseph Collins and B. Sachs, New York: We have collected a large number of cases of cardiac and vascular disease in order to test the value of the Wassermann reaction, with reference to the claim that the test is positive in many of these, and above all in aortic insufficiency. The results of these various tests tend to prove the great importance of syphilis as an etiologic factor in disease of the heart and blood vessels.

Other Papers Read

"Symmetrical Adenolipomatosis," by Dr. Irving P. Lyon, Buffalo; "Case of Cerebral Tumor Presenting an Unusual Clinical Course," by Dr. R. D. Rudolph, Toronto; "A Case of Stenosis and Insufficiency at the Pulmonary Orifice of the Heart, with Exhibition of a Specimen," by Dr. Joseph Sailer, Philadelphia; "Experimental Infection with *Leishmania In-*

fantum," by Dr. F. G. Novy, Ann Arbor; "Study of the Development of the Bones in Childhood by the Roentgen Method, with the View of Establishing a Developmental Index for the Grading and Protection of Early Life," by Dr. T. M. Rotch, Boston; "The Pathologic Relationship of Gastric Ulcer and Gastric Carcinoma, Based on a List of 150 Resections," by Drs. Louis B. Wilson and William C. McCarty, Rochester, Minn.; "The General Movement of Typhoid and Tuberculosis in the Last Twenty-five Years (Lantern Slide Demonstration)," by Dr. G. M. Kober, Washington, D. C.; "Respiratory Variations of the Intrathoracic Pressure," by Drs. S. J. Meltzer and John Auer, New York; "Hyperplasia of the Hemolymph Nodes," by Dr. A. S. Warthin, Ann Arbor; "Further Studies on the Disorder of the Muscles Due to Intense Heat," by Dr. D. L. Edsall, Philadelphia; "A Systematic Comparison of Radiographs of Cadavers with Autopsy Findings in the Pathologic and X-Ray Departments at the Boston City Hospital," by Dr. F. H. Williams, Boston; "A Small Epidemic of Jaundice with Symptoms of Gastrointestinal Catarrh," by Drs. L. F. Barker, Sladen and Clough, Baltimore; "The Effects of Cutting the Branch of the Bundle of His Going to the Left Ventricle," by Drs. L. F. Barker, Hirschfelder and Bond, Baltimore; "A Comparative Study in the Serodiagnosis of Syphilis," by Drs. Homer F. Swift and R. M. Pearce, New York; "The Effects of the Injection of Bile Constituents on the Circulation," by Drs. John H. King and H. A. Stewart, Baltimore; "The Relation of the Thyroid to Carbohydrate Metabolism," by Dr. John H. King, Baltimore; "Studies on Isoagglutinins and Isohemolysins," by Dr. W. L. Moss, Baltimore; "Renal Suppurations in Typhoid Fever," by Dr. Charles F. Withington, Boston

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ARKANSAS MEDICAL SOCIETY

Thirty-third Annual Meeting, held at Pine Bluff, May 18-21, 1909

The officers elected and resolutions adopted regarding public health were given in The Journal, June 5, 1909, page 1843.

Symposium on Tuberculosis

A symposium on tuberculosis to which the public was invited was given under the auspices of the Arkansas Association for the Relief and Control of Tuberculosis; it was well attended and aroused great interest. The following were the papers read: "The Causation, Mode of Prevention, and Hygiene of Tuberculosis," by Dr. E. R. Dibrell, Little Rock; "The Economic Importance of Tuberculosis," by Dr. J. S. Shibley, Paris; "The Protection of Schools from Tuberculosis," by Prof. Junius Jordan, superintendent of schools, Pine Bluff; "Prophylaxis of Tuberculosis," by Dr. D. S. Warren, P. A. Surgeon, U. S. Public Health and Marine-Hospital Service.

President's Address: Education of Public Concerning Preventable Diseases

Dr. J. Clegg, Siloam Springs, said that the profession should enlighten the public in regard to sanitation and hygiene. He deplored the annual inroads of tuberculosis, diphtheria, typhoid, malaria, and the vast amount of cost, poverty, crime and human misery incident thereto. While the task was herculean and the results possibly long delayed, still the great need was everywhere apparent, and the presence of the sallow-faced women, the sickly babes and the yellow-skinned men, were a constant reminder both to the profession and the public of the value of prophylaxis and the great need of the education of the laity. He favored state aid to medical schools, hospitals and laboratories, and higher standards of medical education, literary attainments and mental capacity for those desiring to enter the profession. Industry and observation plus thought and learning made the ideal practitioner. He condemned in severest terms so-called medical journals conducted not for altruistic motives, conveying no information of new truths and discoveries in the advancement of medical science, but published in the interest of some worthless proprietary or quack remedy. Such journals were truly wolves in the fleece of lambs. It was absurd to require of medical men learning and literary qualifications, while faith-cure, scientist, and mental-suggestion dabblers were permitted to foist themselves on the public. He emphasized the great need of a state board of health with authority to compel action in matters of sanitation and hygiene. He recommended the distribution of antitoxins at convenient places in the hands of competent custodians, and that an effort be made to abolish the duty on surgical instruments and physicians' accessories, that exhorbitant prices might be discountenanced. He counseled cooperative work in county societies; much had been done and much should be done to increase the efficiency and helpfulness of every county society.

Advances in Research Work in Syphilology

Dr. Ellis, Hot Springs, referred to the rapid strides in research work, serodiagnosis of syphilis, and the new methods for demonstrating the presence of spirochetes. He favored the inhalation method of administering mercury, especially in cases of syphilitic sore throat. He believed syphilis should be deemed notifiable, and that affected individuals should be restricted during the infective period. He recommended regulations in regard to indiscriminate use of drinking fountains and other public utilities; referred to restrictions of railroads and life-insurance companies regarding syphilitics, which he said should stimulate the profession to renewed effort toward palliation and eradication. He also mentioned the increase in pellagra in the south and suggested inauguration of a rigid system of inspection of maize.

Prevention of Disease

Dr. H. H. Niehuss, Wesson, dwelt on the duty of the practitioner to the laity in the prevention of disease. He believed in extended education along sanitary lines; favored the teaching of hygiene in the public and private schools; and stated his belief that the profession should share the blame for defective health regulations and lax indifference to duty in failing to enforce cleanliness everywhere.

Advances in Surgery

Dr. A. E. Sweatland, Little Rock, called attention to the tremendous advancement in surgery; emphasized the great value of prompt operative measures; condemned vigorously dilatory conservatism; referred to the great improvement in gall-bladder surgery, and treatment of uterine displacements; and condemned the shortening of round ligament in uterine and ovarian fixations.

Responsibility of the Surgeon in Gynecologic Conditions

Dr. C. S. Pettus, El Dorado, condemned in severest terms the laxity in appreciation of responsibility on the part of the surgeon, and the wholesale extirpation of the female reproductive organs. He reminded the profession of the care and sympathy due the pregnant woman, and commended future womanhood to the care of the conscientious gynecologist.

Other Papers Read

The following papers were also contributed: "Duration of Treatment of Syphilis," Dr. E. C. Hay, Hot Springs; "Pneumococcus Endocarditis," Dr. C. H. Hoffman, Little Rock; "Clinical Observations in Mastoid Surgery (with Demonstrations)," Dr. Robert Caldwell, Little Rock; "The Education of the Laity," Dr. John S. Jenkins, Pine Bluff; "Race Suicide from the Physician's Viewpoint," Dr. E. E. Barlow, Dermott; "The Office Treatment of the More Common Diseases of the Rectum," Dr. C. P. Meriwether, Little Rock; "Polypharmacy and Therapeutics," Dr. L. P. Gibson, Little Rock; "Report of a Medicolegal Case," Dr. H. C. Dunavant, Osceola; "Tetanus, with Report of Cases," Dr. G. A. Warren, Black Rock; "Pernicious Malaria," Dr. F. O. Mahoney, Hutting; "Vital Statistics," Dr. D. S. Warren, P. A. Surgeon U. S. Public Health and Marine-Hospital Service, St. Louis; "Acute Dilatation of the Stomach and Duodenum," Dr. C. H. Carhile, Bentonville; "Amebiasis," Dr. J. T. Jelks, Memphis, Tenn.; "Venereal Prophylaxis," Dr. G. A. Hebert, Hot Springs; "Therapeutic Value of Some of the Electric Modalities," Dr. W. T. Lowe, Pine Bluff; "Physiologic Laws Governing the Action of Purga-

tives," Dr. G. E. Pettey, Memphis, Tenn.: "Postoperative Ileus," Dr. Anderson Watkins, Little Rock: "Appendicostomy in Treatment of Epilepsy," Dr. J. P. Runyan, Little Rock: "A Case of Neuroparalytic, or Trophic Ulcer, Treated Surgically," Dr. R. C. Dorr, Batesville: "An Interesting Case of Abdominal Surgery," Dr. G. S. Brown, Conway: "Emergency Surgery," Dr. J. A. Foltz, Fort Smith: "Ectopic Pregnancy," Dr. G. E. Cannon, Magnolia: "Extrauterine Pregnancy," Drs. W. V. Laws and W. Chestnut, Hot Springs: "Neuroses Due to Pelvic Lesions Treated Surgically," Dr. W. C. Dunaway, Little Rock: "Too Much Operative Gynecology," Dr. J. W. Meek, Camden: "The Relief of Suffering During Labor," Dr. G. W. Murphy, Strong: "Report of a Case of Uremia," Dr. J. A. Moore, Lisbon.

MEDICAL ASSOCIATION OF GEORGIA

Sixtieth Annual Meeting, held at Macon, April 21-23, 1909

The President, DR. T. D. COLEMAN, in the Chair

A list of the officers elected was given in THE JOURNAL, May 8, 1909, page 1503.

History of Modern Treatment of Penetrating Wounds of the Abdomen

DR. THOMAS R. WRIGHT, Augusta, read an interesting paper giving a summary of the modern treatment of penetrating wounds of the abdomen, which was considered so valuable by the association that it was recommended that a copy be sent to every physician in the state.

Symposium on Pellagra

Papers on this subject were read by the following: Drs. N. P. Walker, Milledgeville, Lawrence Lee and Earnest S. Cross, Savannah, and H. F. Harris, Atlanta.

The Common House Fly the Principal Cause of Typhoid Fever

DR. J. W. PALMER, Ailey, read this paper, and Dr. J. G. Dean, Dawson, offered the following resolution, which was adopted:

Resolved: That there shall be appointed a "typhoid fly" committee, consisting of five executive members and one member from each county of the state, whose duty it shall be to educate the public by giving public lectures, especially to public schools, high schools and colleges, and through the press on the dangers of the common house fly, and other insects which are notorious for conveying typhoid fever and other diseases.

State Sanitarium for Tuberculosis

The Committee on Public Policy and Legislation reported that last June a bill introduced in the Georgia legislature, providing for the establishment of a state sanitarium for tuberculosis, was passed and an appropriation made for that purpose.

Contribution to Carroll Fund

On motion of Dr. Thomas J. McArthur, an appropriation of $100 was voted toward the fund for raising the mortgage on the home of the late Major James Carroll.

Antirabic Serum

Two papers were read on this subject by Drs. J. N. Brawner, Atlanta, and J. E. Paullin, giving reports from the Georgia Pasteur Institute and the Georgia State Board of Health, showing that there is a marked increase of rabies in the state.

Following the reading of these papers, Dr. Claude A. Smith, Atlanta, said that as it has been demonstrated in Great Britain and other countries that rabies can be stamped out by the muzzling of dogs, the Committee on Public Policy and Legislation of the association should be asked to take up the matter of securing the enactment of the bill which was introduced before the legislature requiring the muzzling of dogs; and that, if in the judgment of the committee it be wise, the cooperation of the lay press be secured in disseminating knowledge regarding this disease, and in the enactment of the bill.

ILLINOIS STATE MEDICAL SOCIETY

Fifty-Ninth Annual Meeting, Held at Quincy, May 18-20, 1909

(Concluded from page 1973)

Recognition and Treatment of Extrauterine Pregnancy

DR. CHANNING W. BARRETT, Chicago: From a study of implantation and the progress of the ovum there are grounds for the conception that the ovum is a parasite living at the expense of its host. Previous pelvic disease, frequently of gonorrheal origin, seems to play an important part as an etiologic factor. A study of the pathology indicates in the case of extrauterine pregnancy, a parasitic growth which develops malignant tendencies due to the incapacity of the maternal tissues to cope with it. The extrauterine ovum is suicidal and matricidal in its tendencies. The risk to the mother is largely, though not entirely, that of hemorrhage.

The less frequent causes of death or morbidity are sepsis, obstruction of bowels, fistulas, etc. The prognosis for the ovum is so uniformly bad that it should receive no consideration except in cases of visable embryo. The menace of extrauterine pregnancy to life and health of the host is so great that an early diagnosis and prompt removal of the ovum is of prime importance. Extrauterine pregnancy should be thought of when a woman of child-bearing age gives a history of sudden, severe pain in the region of the ovary, with a hemorrhage from the uterus, accompanied by collapse, and evidences of concealed hemorrhage; a pelvic mass helps to confirm the diagnosis. The more urgent the symptoms, the greater the need of operation, as the collapse is due to hemorrhage and vessels may still be bleeding or hemorrhage may be resumed. The clinical evidence is that patients do die of hemorrhage, experiments on dogs to the contrary notwithstanding. Pathology indicates and clinical evidence teaches that prompt surgical measures will decidedly lower the mortality. Suprapubic instead of vaginal incision should be chosen in all unruptured cases, and in most old cases, unless contraindicated by sepsis or pus accumulation. No vaginal puncture or exploration should be undertaken for diagnostic or therapeutic purposes unless preparations have been made for immediate laparotomy.

Embolic Aneurisms

DRS. V. L. SCHRAGER AND DEAN D. LEWIS, Chicago: This paper deals with four aneurisms observed in three patients suffering with endocarditis. The relationship between embolism and aneurism formation has been definitely established, as in some cases the sharp, calcified embolus has been found in the aneurismal sac; while in other cases the bacteria which have been recovered from the aneurism were the same as those found in the vegetations upon the valves of the heart. About sixty cases of aneurism of this type are recorded in the literature. The frequent involvement of the cerebral and superior mesenteric artery is noted. It is interesting that veterinarians have recognized for some time the occurrence of parasitic aneurisms in the horse, the *Strongylus armatus* being found in the sac. These aneurisms develop most frequently at the bifurcation of arteries where the emboli are apt to lodge. Embolic aneurisms differ from the ordinary type in that they are often multiple. Four and five aneurisms have been seen in the arch of the aorta, while in some cases a brachial aneurism has been associated with one of the superior mesenteric. In one case an aneurism of the right brachial and right popliteal aneurism developed almost simultaneously. The diagnosis is readily made when the aneurism develops on peripheral arteries. But one case is recorded in which the diagnosis of aneurism of the superior mesenteric artery was made during life.

Medical Treatment of Exophthalmic Goiter

DR. D'ORSAY HECHT, Chicago: In our modern conception of the therapeutics of exophthalmic goiter I think we need take into account little else than a consideration of the efficacy of bed rest and serum, on the one hand, and bed rest and surgical intervention, on the other. This abridgement of the subject-matter appeals to me as both convenient and ample for current discussion. Eulenberg has probably been the staunchest protagonist of the medical treatment of this dis-

case, and his defense of it is based on a consideration of 600 carefully recorded cases. He has taken the stand that exophthalmic goiter should not even be regarded as debatable borderland, and that we should not swerve to the surgical side until the medical treatment is regarded as entirely hopeless. Perhaps in the light of increasingly convincing surgical statistics of a most favorable kind Eulenberg will recede from his original position. The rest cure remains probably the essential, if not the only rational, medical treatment, and when it is advised it should not be done indifferently, but with due emphasis as to the exact length of time the patient will be required to remain in bed. Patients are more readily reconciled to a bed rest régime when one specifies that it is to take place for two, three, four or six months. The technic, in a general way, is much the same as that applied in the so-called Weir Mitchell treatment. The earlier these patients are subjected to this treatment, the better, and I might add that the neurologist not infrequently is the first to see them, at which time they present merely quick fatigue nervousness, sweating, feelings of anxiety and apprehension, together with marked sleeplessness. There can be no doubt that bed rest when given early has a most profound influence for good on the toxemia.

In my hands antithyreoidin Moebius has given some satisfaction. This product is derived from thyroidectomized sheep. It is put up in small vials of 10 c.c. and kept stable by the addition of 0.5 per cent. carbolic acid solution. It is given by mouth in an ascending dosage of from 5 to 40 or 50 drops diluted in a wine glass of water three times a day, after meals. My experience with it has been rather gratifying in the eight cases in which it was used, and I may add without serious or even adverse results. In two patients there was an increase in symptoms, with a slight rise of temperature that called for its discontinuance. In no case was it used for longer than six weeks, nor was the dosage ever carried beyond forty drops. Rogers and Beebe have been the latest investigators in the field of serotherapy in this disease, their product being referred to as a specific (cytolytic) serum, derived from human thyroid glands. They report its use in many hundreds of cases, but dwell particularly on a series of 105 patients personally treated by Rogers, up to Jan. 1, 1908, giving results which are relatively good, although to me not entirely convincing. Their serum is given hypodermatically under the skin, preferably on the outer upper aspect of the arm, at the lower insertion of the deltoid, and they report in many cases a local and in some a systemic reaction of considerable intensity. Although their arguments in behalf of a specific serum are sound, nevertheless I doubt if in our present state of serologic therapy a specific serum can be made that will not of necessity contain substances so toxic for the body as to be harmful and ever dangerous. If we could produce a serum that would be specific for thyroid and neutralize only the toxins of hyperthroidism without in any way influencing other metabolic processes, then inded we would arrive at an ideal solution of the therapeutic problem of this disease. That would put surgical intervention into disuse. Of organotherapeutic specialties, or of the value of electrotherapy I need say little except to emphasize their negative value. The symptomatic remedies that have at one time or another been used are quinin hydrobromate, grs. 5, combined with ergotin, gr. 1, a formula strongly advocated by Forchheimer, who records good results in over 40 cases. My experience with it is limited and not gratifying. A long list of remedies might contain a few that could be considered of avail but not necessarily of much service. I may recommend, however, administration of small doses, from 15 to 30 grains, of sodium phosphate given with water, three time a day, after meals, particularly in early cases in which the patients are taking the rest cure. Whether this acts only as an eliminant and so redues the toxemia, I do not know but I can subscribe to its good effect. Where there is diarrhea and the sodium phosphate has a tendency to increase it, it is well to substitute the phosphate of potassium, as recommended by Bramwell. In conclusion, I would say that called on to treat a case of incipient Graves' disease, I should encourage immediate bed rest with a view to early operative interference. In advising the latter I would specify and insist if I dared that only a surgeon competent and experienced in thyroid surgery be called on to perform operation. I believe that to temporize and to tide patients over from one exacerbation of acute thyroidism to another and so on for several periods before advising operation means subjecting them needlessly to constantly increasing toxemia, diminished resistance, goiter heart, etc., eventually bringing them into the realms of a high mortality.

Surgical Treatment of Exophthalmic Goiter

Dr. Carl E. Black, of Jacksonville, reviewed the principles connected with the surgery of the thyroid gland. He compared the surgical with the medical treatment; how and why cases should be selected for surgical in preference to medical treatment, and cited an illustrative case.

Thyroidectomy for Dementia Præcox

Dr. Allen B. Kanavel, Chicago, presented a preliminary report of the results in 10 old cases of dementia præcox. Following Berkeley's suggestion of the relation of the thyroid gland to dementia præcox and his report that certain patients had been benefited, and through the courtesy of C. C. Willhite, several well-established cases of dementia præcox were placed under the observation of Dr. Louis J. Pollock, who made a careful study of the condition for a number of weeks. These patients have been operated on in association with Dr. Eustace, and the glands have been carefully studied from the pathologic point of view in association with Professor F. R. Zeit. Microscopic sections of the gland were shown and the clinical histories of the cases following operation were discussed with a short review of the results in this series of old cases and in the series of early cases reported by Berkeley.

Other Papers

The following papers were also read: "The Advantages of Intermittent Positive Pressure for Resuscitation," by Drs. J. A. Capps and D. D. Lewis, Chicago; "The Doctor in Civic Life," by Dr. John A. Witherspoon, Nashville, Tenn.; "Medical Treatment of Goiter and Duodenal Ulcers," by Dr. B. W. Sippy, Chicago; "Pyloric Stenosis in Infancy," by Dr. Frank X. Walls, Chicago; "Value of Wassermann Test in Nervous and Cardiovascular Diseases," by Dr. F. G. Harris, Chicago; "Nature of the Cardiovascular Changes in Nephritis," by Dr. Alfred C. Croftan, Chicago; "Report of a Case of Hodgkin's Disease; Primary Tumor in Gall Bladder," by Drs. E. H. Weld and P. L. Markley, Rockford; "Fracture of the Acetabulum with Central Dislocation of the Femur," by Dr. W. Fuller, Chicago; "Fracture of the Pelvis with Rupture of the Bladder, with Report of Four Cases," by Dr. E. K. Lockwood, Virden; "Skin Grafting with Report of a Case," by Dr. G. H. Galbraith, Clifford; "Tuberculosis in Infants and Children," by Dr. C. W. Lillie, East St. Louis; "A Rare Case of Pemphigus Requiring Surgical Attention," by Dr. S. C. Glidden, Danville; "Conservative Joint Surgery," by Dr. L. Ryan, Chicago; "Diagnosis of Disease of the Lung and Pleura, with Presentation of Patient," by Dr. Emil G. Beck, Chicago; "Diagnosis and Treatment of Ureteral Calculus," by Drs. A. D. Bevan and H. L. Kretschmer, Chicago; "Vesical Symptoms Due to Diseases External to the Bladder," by Dr. L. E. Schmidt, Chicago; "A Prostatic Brief," by Dr. Gustav Kolischer, Chicago; "Diagnosis of Exophthalmic Goiter," by Dr. H. T. Patrick, Chicago; "The Pus Appendix," by Dr. G. W. Green, Chicago.

Medicolegal

Liability for Bad Effects of Indicated Second Operation—Admissibility of Radiographs—Future Pain and Suffering

The Supreme Court of Pennsylvania says, in the personal injury case of Wallace vs. Pennsylvania Railroad Co., that on September 7 the plaintiff, while a passenger, was injured in a collision between two of the defendant's trains, sustaining a fracture of both bones of his left limb between the knee and ankle. He was at once removed to a city hospital, where he was placed in charge of a physician and surgeon in the employ of the defendant company, who proceeded without delay to place the injured limb in alignment and apply splints. The plaintiff remained in the hospital under treatment for nearly a month, when, being able to go about on crutches, he was

taken to his home. About the middle of November following, the same surgeon removed the plaster cast and directed moderate use of the limb.

The plaintiff testified that after the removal of the cast he suffered pain in his limb so severe that he was scarcely able to endure it. Because of its continued severity, he procured radiographs to be taken of the injured part, and, in view of what these were supposed to disclose, he employed a surgeon of repute. The latter, from an examination of the radiographs and the patient, concluded that what caused the pain was an overriding of the fibula to the extent of three-fourths of an inch, and that an operation was necessary to make the small bones unite squarely, and thus relieve the pressure on the vessels and nerves of the foot resulting from the overriding. The operation involved not only an incision, but a severance of the bones which had partially united, the removal of the oblique ends, and the bringing them into a more perfect apposition and securing them in proper place by artificial tendons. This operation was performed by this second surgeon, with the assistance of another surgeon, and in the presence of several, at the same hospital where the patient was first treated.

This second surgeon testified that he found the conditions to be just as the radiographs represented them, and in addition he found the tissues about the place of fracture devitalized; the blood supply having been interfered with by the pressure of the bone.

Several months later another operation was required for the removal of a piece of dead bone which resulted from the devitalized tissues.

The railroad company contended, among other things, that if the jury found that the second operation caused the dead bone, and that this dead bone was not a sequence or result of the original injury, they should not take this dead bone into account in making up their verdict. But the court thinks that this point was rightly refused because it did not comprehend sufficient matters of fact to justify the conclusion sought to be drawn. If the operation was performed in good faith, before the recovery of the plaintiff from the original injury, with a view to promote and insure complete recovery or mitigate the plaintiff's pain, either by correcting what had been done or by supplementing it, by a surgeon in whose skill and judgment the ordinarily prudent person would have a right to rely, the consequences following the operation and resulting directly therefrom were in a legal sense the sequence and result of the original accident.

The court also considers that it was entirely proper to allow the second surgeon to state the grounds on which he based his conclusion as to what caused the pain from which the plaintiff suffered, and prevailed with him in determining that an operation was necessary. His conclusions were based largely on what the radiographs revealed. This circumstance made the radiographs admissible in evidence. While it was not a material inquiry in the case whether the operation was a prejudicial one or not, if made in good faith by one on whose skill the plaintiff had a right to rely, yet it was around this question that the controversy was waged; the defendant company insisting that no excuse whatever existed for the operation. Under such circumstances it would have been most unjust to the witness to refuse him permission to show by the radiograph what directed his judgment. He testified that when operating he found the conditions to be just as the pictures represented. In view of this testimony the objection that they were not taken by a professional came to nothing.

Again, the court says that nothing is better settled than that in cases of personal injury pain and suffering are to be reckoned as distinct elements for which compensation is to be allowed. It is equally well settled that this rule admits of compensation for future as well as past pain and suffering.

With what degree of certainty must it be made to appear that the future pain and suffering will ensue before compensation for them can be allowed?

In the multitude of cases of like character which have come before this court for review, one unvarying rule has been observed regarding the quantity of proof required, and it is this: The jury may and should award compensation for future pain and suffering whenever the evidence furnishes just ground for the belief that such pain and suffering will likely or probably ensue. This standard has met with the approval and sanction of this court in every case, and that without qualification.

With such explicit and repeated recognition by the Pennsylvania courts of a rule which admits compensation for pain and suffering likely to ensue, it comes to nothing to show that in some jurisdictions recovery for these is allowed only when it is made to appear that they are reasonably certain to result. This court is not called on to vindicate the justice or reasonableness of the rule which obtains in Pennsylvania. It is only necessary to assert it and express the court's continued adherence to it. All that is required in Pennsylvania is that there be sufficient evidence from which the jury may fairly derive the conclusion that the chances that the plaintiff will endure future pain and suffering preponderate over those that he will not. Such preponderance denotes probability or likelihood, and that is sufficient.

Requisites to Liability of Parents for Failure to Provide Medical Attendance for Minor Child

The Supreme Court of New Jersey says that in the case of State vs. Watson and wife, where the defendants were convicted of manslaughter, the specific charge was a failure to provide medical attendance for their minor child, aged 7 years.

The court, however, does not find it necessary to consider the interesting, and, in New Jersey, novel question which was argued as to how far the religious belief of the defendants, who were Christian Scientists, would excuse them. It simply holds that the conviction could not be sustained under the New Jersey statute because the jury had no opportunity to find whether the neglect was wilful.

The case was tried, apparently, the court says, without regard to the New Jersey Act of March 22, 1901, which provides that any person having the care, custody or control of any minor child, who shall wilfully neglect to supply the same with sufficient food, clothing, and regular school education, or who shall wilfully abandon or neglect the same, shall be guilty of a misdemeanor. This act did not seem to have been called to the attention of the trial judge, and he, therefore, did not put to the jury the question whether the parents had wilfully neglected the child. However strong the evidence may have been on this point, the defendants were entitled to the verdict of a jury thereon.

Instead of submitting this question, the case was tried as arising under the common law. The judge properly charged the jury in one part of his charge that the defendants could not be convicted unless the jury found that they were guilty of culpable negligence, and in another part of the charge he put to them the question whether the child died as the result of their being grossly negligent; but in other portions of the charge he told them that, as it had been proved that the defendants did provide medical attendance, they must consider whether they provided this aid with the same diligence that a reasonable and prudent person would have done, and subsequently charged that, if they found that the defendants called in medical aid as soon as a reasonable and prudent person would have believed it to be necessary, the verdict must be not guilty, and toward the end of his charge the judge defined negligence as the omission to do something which a reasonable man, guided by those considerations which ordinarily regulate the conduct of human affairs, would do, and that in this case negligence, if it existed at all, was the failure to observe, for the protection of the interests of another person, that degree of care, precaution and vigilance which the circumstances justly demanded, whereby others suffered injury—failure to do what a reasonable and prudent person would have done.

The Supreme Court thinks that the effect of this charge was to allow the jury to infer that the defendants had been grossly and culpably negligent if they failed to furnish medical aid with the promptness of a reasonable and prudent person. This ignored the distinction between such negligence

as forms the basis of civil liability and that gross and more culpable negligence which is required at common law to constitute a crime. The charge was therefore faulty as a definition of the common-law offense.

The court also says that under a somewhat similar statute to that of New Jersey it has been held in England that the religious belief of the parents was not a sufficient defense. Queen vs. Senior (1899), I. Q. B. 283.

Law as to Privileged Communications Not Abolished

The Court of Appeals of New York says, in the case of Homnyack vs. Prudential Insurance Co. of America, that, by the first section of Chapter 331 of the Laws of New York of 1905, Section 834 of the New York Code of Civil Procedure, which prohibits physicians or professional registered nurses from disclosing professional information, was amended by adding a provision intended to remove the privilege, and permit the disclosure of information acquired by physicians or nurses in treating their patients, where it should appear that the information so acquired indicated that the patient had been the victim or subject of a crime. Then Section 2 of said Chapter 331 provided: "Nothing in this act contained shall affect any actions or proceedings now pending." But the court holds that the plain meaning of this was that the amendment added to Section 834 by Chapter 331 of the Laws of 1905 should not affect any pending actions or proceedings. It was the amendment which was not to have any effect on suits already begun. The provision had no application to the pre-existing part of the section which remained unchanged by the amendment. That was left still in full force and effect. Under the contrary construction contended for, the court would have to hold that the legislature had abolished the law of privileged communications in favor of physicians so far as that law may have been applicable to innumerable litigations then pending in New York state. An intention thus to change a long established rule of evidence should not be imputed to the lawmakers in the absence of a clearer manifestation thereof than was to be found in this amendatory statute.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York

June 5

1 Alcohol Injections in Neuralgias, Especially in Tic Douloureux. O. Kiliani, New York.
2 Etiology of Arthritis Deformans. J. Heckmann, New York.
3 A Little Abdominal Surgery by the Family Physician. W. H. Dukeman, Los Angeles, Cal.
4 A Study of the Urinary Acidity and Its Relations. H. R. Harrower, Chicago.
5 *Adams-Stokes Syndrome (Heart Block). A. A. Robinson, Ogden, Utah.
6 The Present Status of Prostatectomy. J. B. Squier, New York.

5. **Adams-Stokes Syndrome.**—Heart block, according to Robinson, is not a specific disease, but a combination of symptoms in which the Adams-Stokes syndrome is constant. Its etiology, therefore, varies with the individual case; its effects are most noticeably shown on the vascular system, the other organs suffering as a result of the faulty cardiac action. Though varying in degree, a slowing of the ventricular action is a constant feature: the ventricular beat may be from twenty-three to twenty-eight a minute. Because the right auricle does not empty itself, it becomes distended and by back pressure produces a congestion in the great vessels of the neck. The cerebral symptoms are due to the reduced flow of blood from the left ventricle and may manifest themselves as convulsions, epileptiform attacks, vertigo, syncope or coma. The prognosis in this condition is bad and there is no very satisfactory treatment.

New York Medical Journal

June 5

8 *Cutaneous Cyst Formations and an Unusual Disease of the Hair Follicle. A. R. Robinson, New York.
9 Flagellation of Leucocytes in the Presence of Chemical Excitants and in Other Conditions. E. M. L'Engle, Philadelphia.
10 Deficient Oxidation and Its Relation to the Etiology, Pathology, and Treatment of Nephritis. N. E. Ditman and W. H. Welker, New York.
11 Sinus Thrombosis of Otitic Origin and Its Relation to Streptococcemia. E. Gruening, New York.
12 Malarial Fever as Seen at Close Range in the Deep Jungle of the Malay Peninsula and in the "Country of the Ghosts." C. S. Braddock, Haddonfield, N. J.
13 A Case of Bromoform Eruption. I. W. Voorhees, New York.
14 A Case of Typhoid Fever Ushered in by an Attack of Uremia. R. M. Goepp, Philadelphia.
15 Chimaphila in Diabetes. S. G. Soules, Stanbridge East, P. Q., Canada.

8. **Cutaneous Cyst Formations.**—Robinson gives the results of his studies of those pathologic conditions of the skin described as follicular cysts, horn cysts, sebaceous cysts, comedo and milium. He states that there has been more or less difference of opinion regarding the mode of origin, the anatomic seat, and the structure of these lesions. In his opinion the views given by a majority of writers on dermatology are not the result of personal experience but merely the reiteration of statements of previous authors. According to Robinson, cysts of the pilosebaceous system should be classified according to the character of their contents as horn cysts, mixed cysts and sebaceous cysts. It is possible, he believes, for a pure horn cyst to exist but not for a pure sebaceous cyst. A sebum cyst never arises primarily in the secretory part of the sebaceous gland nor in a special excretory duct of this structure, but always in some part of the common excretory duct of the pilosebaceous system. On the other hand, a pure horn cyst may be found in the follicle opening or on one side of the excretory duct and by changing the position of the orifice may make it invisible or appear to have no connection with the cyst. Whether a horn cyst appears as a milium-like body or not, it usually arises from the external root sheath of the hair. In some cases it is due to misplaced embryonic rudiments from follicle or epidermis when the cyst is separated from the follicle. An isolated cyst may arise from the horn cyst and appear later as an independent formation. Robinson closes his paper with the description of a case in which the objective characters resembled the comedo or milium condition, in fact, it was regarded by several dermatologists as an atypical form of one or the other of these formations. Robinson is of the opinion, however, that it was an independent condition, a clinical entity, and one which he has been unable to find described in literature on cutaneous diseases.

Lancet Clinic, Cincinnati

May 29

17 Tuberculin Reactions and their Interpretation. L. A. Levison, Toledo, O.
18 Difference Between Suggestion and Persuasion. Importance of the Distinction. T. A. Williams, Washington, D. C.
19 Obscure Fractures Discovered by Roentgen Examination. S. Lange, Cincinnati.

American Journal of Obstetrics and Diseases of Women and Children

May

20 Ephraim McDowell, the Father of Ovariotomy. J. R. Goffe, New York.
21 A Sequel to McDowell's Triumph, Being a Brief Sketch of the Rise and Progress of the Samaritan Free Hospital. A. H. G. Doran, London.
22 *Ligation or Excision of Thrombosed Veins in Treatment of Puerperal Pyemia. J. W. Williams, Baltimore.
23 Exophthalmic Goiter and Pregnancy. H. M. Stowe, Chicago.
24 Treatment of Inoperable Cancer of the Uterus. G. Gellhorn, St. Louis.
25 Tuberculous Peritonitis. L. Brown, New York.
26 Diagnosis of Tuberculous Peritonitis in Women. J. N. West, New York.
27 Case of Symphysiotomy. D. W. Prentiss, Washington, D. C.
28 Meckel's Diverticulum and Other Bands as Causes of Ileus. G. T. Vaughan, Washington, D. C.

22. **Ligation or Excision of Thrombosed Veins.**—Williams analyzes the reported cases of ligation or excision of thrombosed veins in puerperal pyemia and finds that the gross mortality does not differ materially from that following expectant treatment. By deducting incurable cases and those in which the technic was faulty, a corrected mortality of 21.4 per cent. is obtained for the transperitoneal method of operation. Williams reports five cases with a mortality of 20 per cent.

The indication for the operation is given whenever a positive diagnosis can be made by feeling a worm-like mass at the outer portion of the broad ligament, in patients suffering from chills and a hectic temperature. In case the thrombosed vessels can not be palpated through the vagina, the determination to interfere should be governed entirely by the general condition of the patient and if this is serious and shows no signs of improvement, the abdomen should be opened, provided that peritonitis or broad-ligament abscess has not developed. Excision of the thrombosed vessels is rarely necessary and only when the vessel appears likely to rupture or is surrounded by periphlebitic inflammation should it be substituted for ligation. If there is reason to believe that the hypogastric veins are involved, they should be exposed and ligated before closing the peritoneal incision over the spermatic vein. The prognosis becomes more serious in proportion to the number of veins which must be ligated. The transperitoneal is preferable to the extraperitoneal route. It is technically easier, affords a much more extensive view of the vessels, and with proper precautions, scarcely increases the likelihood of peritoneal infection. The vaginal route suggested by Taylor, Latzo, and others is applicable only to a small class of cases in which the thrombotic process is limited to the vessels of the broad ligament. As such diagnosis can not be made Williams considers that laparotomy should be done in all cases in which interference appears to be indicated.

The American Journal of Physiology

June

29 *The Effects of Bone Ash in the Diet on the Gastrointestinal Condition of Dogs. A. P. Lothrop, New York.
30 An Improved Method of Desiccation, with Some Applications to Biologic Problems. L. F. Shackell, St. Louis.
31 Influence of the Temperature of the Heart on the Activity of the Vagus in the Tortoise. G. N. Stewart, Cleveland, O.
32 An Apparatus for Studying the Respiratory Exchange. G. Benedict, Boston.

29. **Bone Ash in the Diet of Dogs.**—Lothrop employs bone ash in metabolism experiments on dogs, because he finds that it lessens putrescence of the feces and makes the feces more convenient to handle. His experiments were undertaken to determine whether this use of bone ash affects the metabolism in such a way as to interfere with metabolism experiments. He concludes that the use of bone ash seems to offer no metabolic disadvantages whatever.

Pennsylvania Medical Journal, Athens

May

33 *Etiology and Pathogenesis of Gastric Ulcer. W. T. Longcope, Philadelphia.
34 *Medical Treatment of Gastric Ulcer and Its Results. J. A. Lichty, Pittsburg.
35 *Surgical Treatment of Gastric Ulcer. G. P. Muller, Philadelphia.
36 Analytic Description of the Eye as an End Organ. J. E. Willetts, Pittsburg.
37 *Value and Results of Eight Years of Fumigation and House Isolation for Contagious Diseases in Williamsport. C. W. Youngman, Williamsport.
38 Question of Drainage in Surgery of Pelvic Organs. F. H. Maier, Philadelphia.
39 Need of Endowments for State and County Medical Societies. J. B. Roberts, Philadelphia.
40 Eternal Persistence the Price of Success. H. W. Gass, Sunbury.
41 Local Society a Useful Adjunct to the County Society. J. P. Strickler, Scottdale.
42 How Can the State and Local Secretaries Best Help Each Other. C. L. Stevens, Athens.
43 Early Diagnosis of Tuberculosis. L. N. Boston, Philadelphia.

33. Abstracted in THE JOURNAL, Oct. 31, 1908, p. 1541.

34. **Gastric Ulcer.**—The treatment which Lichty uses in most cases is similar to that first described by von Leube and Ziemessen, except that he uses a more mixed diet when he begins feeding by mouth. The 140 cases are divided into three classes according to treatment. The first class consisted of 92 patients who were treated by diet, medication and other measures. Of these, 3 are unimproved, 52 improved, 33 well, and 4 have died. The second class consisted of 32 patients who were treated by rectal feeding. Of these, 8 improved, 22 are well, and 2 have died. The third class consisted of 16 patients and includes those treated surgically. Of these, 1 is unimproved, 6 are improved, 7 are well and 2 have died. The mortality in the 140 cases is 5 per cent. Four of the 8 patients who died became carcinomatous and 3 died of perforation. The number of cases which Lichty has studied in this compilation, while not large enough to furnish conclusions, serve as the basis for the following observations: 1. The 140 cases reported occurred among about 1,395 gastric cases, which are included in over 8,000 patients which make up a general practice. 2. The mortality need not be high. The most frequent cause of death is cancer, the next frequent is perforation. Death from hemorrhage in an uncomplicated ulcer did not occur in the series. 3. The medical treatment of gastric ulcer gives results which show that it has a definite place in the general treatment of gastric ulcer, and only those cases having certain complications become surgical.

35. **Idem.**—According to Muller the indications for surgical treatment are perforation, repeated hemorrhage, pyloric stenosis, perigastric adhesions, dilatation and hour-glass contraction. Symptoms indicating disturbance in secretory function which fail to respond to prolonged medical treatment, and especially when motor disturbances become prominent, should lead to operation. The most important point in the surgical treatment, to the general practitioner, is the after-history of patients on whom gastrojejunostomy has been performed.

37. **Fumigation and House Isolation in Contagious Diseases.**—Youngman says that in Williamsport for the past two years they have used for fumigation in contagious diseases a pint of 40 per cent. formaldehyd to 8 ounces of potassium permanganate for each 1,000 cubic feet of space. With this process they have had no trouble. It is quick and effective, a saver of time and apparatus, and comparatively safe. He upholds the criticized rule, that where a case of scarlet fever or diphtheria exists and the patient is effectually isolated in a remote part of the house with a nurse, holding no direct communication with the rest of the household, and the physician in attendance gives assurances that this will be carried out, the health board, if satisfied that the public will not be endangered, will omit the placard. This works, particularly in hotels and boarding houses, with benefit to the people directly concerned; prevents loss of business, and also the secreting of cases. Placarding is done to protect the public. If the public is protected by as complete isolation as is possible in any house, what is the use of simply advertising the disease? Absolute quarantine with guards is usually only a bluff. It can be, and is, broken in spite of all guards, if the quarantined people are so inclined. To carry out absolute quarantine would be so expensive that the city fathers would succumb to financial nightmare, and then it would be ineffectual. So the best we can do is to persuade and educate the people by word of mouth and printed rules bearing on the particular disease in question. This works well with the great majority. With others, force is necessary.

Surgery, Gynecology and Obstetrics, Chicago

May

44 *Ephraim McDowell, the Father of Ovariotomy. J. R. Goffe, New York.
45 Acute Dilatation of the Stomach. B. MacMonagle, San Francisco.
46 *Ovarian Tumors Complicating Pregnancy, Labor and the Puerperium. H. R. Spencer, London, Eng.
47 *Cesarean Section in the Treatment of Complete Placenta Prævia. F. S. Newell, Boston.
48 *Operative Treatment of Cases of Extensive Cystocele and Uterine Prolapse. T. J. Watkins, Chicago.
49 *Ureteral Fistulas as Sequelæ of Pelvic Operations. J. A. Sampson, Albany, N. Y.
50 We are no Longer Justified in Sterilizing Every Woman who has a Cesarean Section. A. L. Smith, Montreal.
51 *Ovarian Tumor with Twisted Pedicle, Complicating Pregnancy. E. P. Davis, Philadelphia.
52 Experimental Studies of Postoperative Peritoneal Adhesions. G. Gellhorn, St. Louis.
53 *What to Teach the General Practitioner Concerning the Treatment of Abortion and Miscarriage. F. J. Taussig, St. Louis.
54 Thrombophlebitis with Peroneal Neuritis and Paralysis Following Supravaginal Hysterectomy. R. Peterson, Ann Arbor, Mich.
55 *Improvements in Anesthesia. J. C. Webster, Chicago.
56 *Methods of Administration of Anesthetics. S. C. Gordon, Portland, Me.
57 *Advisability of Making the Practical Administration of Anesthetics a Required Part of the Medical Course. R. Peterson, Ann Arbor, Mich.
58 *The Trained or Untrained Anesthetist? H. Robb, Cleveland, O.
59 *Treatment of Placenta Prævia by Cesarean Section. E. H. Grandin, New York.

44, 46, 49, 51, 55, 56, 57, 58. Abstracted in The Journal, May 15, 1909, pp. 1612, 1613, 1614 1615 and 1616.

47, 53, 59. Abstracted in The Journal, May 8, 1909, pp. 1528, 1529, 1530.

48. **Uterine Prolapse and Cystocele.**—Watkins discusses, first, the pathology; second, what the operative treatment should accomplish; third, the transposition of the uterus and bladder in the treatment of diseases; the results obtained by this operation, etc. He speaks of modifications of the operation (a) during the reproductive period, and (b) for very extensive cases.

Therapeutic Gazette, Detroit

May

60 Surgical Treatment of Complicated Vaginal Delivery. E. P. Davis, Philadelphia.
61 *Surgery of the Stomach. J. B. Deaver, Philadelphia.
62 *Treatment, General and Local, of "Cold in the Head." C. P. Grayson, Philadelphia.
63 Tetanus of Short Incubation—Recovery. E. M. Harvey, Media, Pa.
64 The Chopped Meat Diet. A. L. Benedict, Buffalo, N. Y.

61. **Surgery of the Stomach.**—Deaver discusses gastric ulcer and its complications, malignant disease, gastroptosia and dilatation of the stomach. He insists on the great frequency of ulcer, and says that a long rest in early cases is the essential indication; but it has been abundantly proved that it is impossible to provide rest by medical means for a sufficient time to permit a cure in the majority of cases. Gastric drainage is the solution, and gastroenterostomy, the treatment of choice in cases of simple chronic persistent symptom-giving ulcers of the stomach and duodenum. In regard to cancer, he insists on the importance of acting on suspicion. There is little use in the practitioner bothering his head about a diagnosis if he insists on certainty. By the time he is certain of his diagnosis, he is also certain of a prognosis. "The latest device which has been invented to defer operation until it is too late is gastric analysis." In dilatation of the stomach in the presence of a patulous pylorus an operation may be serviceable and give truly brilliant results. Deaver has never seen a fatal case of acute dilatation of the stomach, such as is described in the literature, which fact he attributes to the early and free use of the stomach tube in all cases which show accumulation of flu or gas in the stomach. The treatment of dilatation is early recognition of the onset and prevention by means of lavage. Elevation of the foot of the bed, by preventing sagging downward of the stomach, and the obstruction of the duodenum by the root of the mesentery as the intestines prolapse downward, may be valuable adjuncts, whether in primary cases or as a complication.

62. **Cold in the Head.**—Grayson says that the treatment of this condition has not advanced much from that employed by our professional grandfathers, or even apparently from the period of the Egyptian dynasties. Besides the microbic infection, there are commonplace non-microbic colds in the head, due only to exposure and chilling, and not free from the possibility of serious results. Underlying all acute cases of rhinitis is a chronic catarrhal rhinitis. If we were to imagine a perfectly normal man, a severe chilling would be followed by no more than a transient congestion of the internal structures, with a coincident rise of temperature, which would disappear under the recovery of control by the vascular inhibitory mechanism. In the physical degenerate man of our acquaintance, however, there are so many spots of enfeebled resistance, so many of actual, or more or less latent, disease, that a severe chill is almost certain to be followed by a tedious struggle to overcome the ill effects. Grayson believes that back of the predisposing chronic rhinitis is always an equally chronic predisposing intestinal toxemia. He holds that an acute coryza represents the results of a triple pathogenetic alliance—a chronic rhinitis, a chronic intestinal toxemia, and an exposure to an accidental stress of some kind, not necessarily thermometric or hydrometric, for just as effective as these are others of an emotional, dietetic, dynamic or microbic nature. Although in all cases the general principles of treatment will be the same, considerable discrimination in the matter of detail must be exercised in the individual case, because of the varying nature of the exciting cause. The rational treatment for acute rhinitis will be directly and vigorously addressed to the predisposing systemic conditions. Begin with a cathartic dose of one of the natural saline waters. The patient should fast for twenty-four hours, and several times during this period he should, for fifteen or twenty minutes, indulge in the most active exercise of which he is safely capable. For those to whom, owing to age or some organic unsoundness, it would be unsuitable, the cabinet bath or some other non-depressant method of promoting diaphoresis is to be preferred. If drugs must be used, to fortify the patient's confidence, let them be only such as will harmonize with the foregoing therapeutic plan—the salicylates or their synthetic substitutes, the saline laxatives on rising and retiring, a few minims of aromatic spirit of ammonia or tincture of nux vomica. These may not help very greatly, but at least they will not delay the relief afforded by the hygienic measures. Local treatment can be no more than palliative. Before making any application or even spraying, it is wise to reduce oversensibility by a preliminary spray of 1 or 2 per cent. solution of cocain. Two or three drops of this should be used in each fossa. A small tuft of cotton on a light and slender applicator, moistened with the 2 per cent. cocain solution, carried up to the middle turbinates, will enable us to reach and flush almost the entire nasal chamber with an alkaline antiseptic wash. The mucosa should be covered with a protective and soothing fluid or powder: Two parts of zinc stearate, with menthol, and one part of zinc stearate with balsam of Peru, dusted throughout the fossæ from a nasal insufflator.

Chicago Medical Recorder

May

65 *Choice of Operation for Chronic Inguinal Hernia. W. H. Allport, Chicago.
66 *Reminiscences of Ten Years as Commissioner of Health in Chicago, and Suggestions for the Future. A. R. Reynolds, Chicago.
67 Intravenous Infusion, its Technic, and Some Personal Observations in 5,000 Intravenous Operations. W. G. Fralick, New York.
68 *Christian Science from a Physician's Standpoint. A. D. Kohn, Chicago.

65. Published in the *Iowa Medical Journal*, April, 1908, and abstracted in The Journal, May 8, 1909, p. 1543.

66. **A Health Commissioner's Reminiscences.**—Reynolds interestingly reports his ten years' experience as health commissioner for Chicago, in reference to the water supply, milk inspection, antitoxin treatment of diphtheria, vaccination and smallpox, infant feeding, venereal diseases, and the sterilization of criminals.

68. **Christian Science.**—Kohn gives an admirably reasoned exposition of the factors that enter into Christian Science success, notably self-limiting of disease, diseases of spontaneous remission, the effect of fear, coincidence, etc. Many interesting examples are given of cures subsequent to the adoption of Christian Science, which are clearly coincidental. The following is a typical case: An old lady was suffering from what we may term recurrent hysteria with melancholia. The attacks, which were accompanied by fits of profound mental depression, usually lasted from six to twenty months, and she had a number of such attacks, each of which was followed in the past by freedom from the disease for from six to eighteen months. When Kohn first called to see her, she had rapidly drifted from doctor to doctor, had even tried osteopathy, and at the time of his first visit he saw a copy of the "Key to the Scriptures" lying on her table. After a time she recovered, and as usual came a relapse, and after a year or more at the various sanatoria she, for the second time, embraced Christian Science, and, wonders to behold, in three weeks she was well. She now forgets that she made similar recoveries long before the days of Eddyism, and could not possibly be convinced that what she thought was a marvel from on high, was merely a coincidence, and that the tractors, or blue glass, or Dowie could have done the same, providing her time was up. She even forgets her former fruitless study of Christian Science. What is more, when the vicious circle swings around again, she will have another attack, in spite of the "Key to the Scriptures," which will probably look tarnished by that time.

Journal of the Michigan State Medical Society, Detroit

May

69 *Symptoms and Diagnosis of Incipient Pulmonary Tuberculosis C H Johnston, Grand Rapids
70 Observations on the General Principles of Hospital Organization W F Metcalf Detroit
71 Figot D Inglis Detroit
72 Trifacial Neuralgia Treated by Alcohol Injections R J Walker, Saugatuck

69 **Incipient Tuberculosis.**—Johnston says that too many wait until bacilli are present in the sputum before making up their minds as to the diagnosis of tuberculosis One has to be constantly on guard for the incipient signs, loss of weight, failing appetite, general debility, and increased pulse rate and a daily slight elevation of temperature, or many cases of incipient disease will escape notice Repeated examinations of the chest may have to be made before distinct physical signs are detected Of these, one of the earliest is a change from the continuous breezy, inspiratory rhythm to an interrupted cogwheel rhythm Next in importance is the finding of fine crepitant râles on inspiration Cough may or may not be present Hemoptysis when present, is most important Ninety per cent of cases of hemoptysis are said to be followed sooner or later by evidences of pulmonary tuberculosis Percussion of the chest is frequently negative in the incipient stage One of the most reliable signs of consolidation is the whispering voice sign Johnston's experience leads him to believe that the ophthalmic test is much less reliable than the hypodermic test in incipient disease Recent investigations have shown tuberculosis to be much more prevalent among infants and children than it was formerly supposed to be He particularly emphasizes the fact that fine crackling râles often constitute the only physical signs to be found in incipient cases of pulmonary tuberculosis, and if they are persistently localized in one lung, they may be considered almost pathognomonic of this disease.

FOREIGN

Titles marked with an asterisk (*) are abstracted below Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest

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Lancet, London

May 22

1 Classification and Nomenclature of Diseases, with Remarks on Diseases Due to Treatment H D Rolleston
2 Treatment of Chronic Diseases of the Heart F J Wethered
3 Effect of Radium on Pathogenic and Non Pathogenic Bacteria C E Iredell and E P Minett
4 Therapeutic Effects of Radium Emanations in Skin Diseases H R Crocker
5 Electrocardiogram of Man and of the Dog as Shown by Einthoven's String Galvanometer A D Waller
6 Cause of Death After Operation in Acute Appendicitis C A Morton
7 Prostatic Calculi J L Thomas
8 *Double Pneumonia After Childbirth, Pulmonary Infarcts, Injections of Vaccine of Mixed Pneumococci, Recovery. G B Batten
9 Disappearance of a Sarcoma Following Injections of Coley's Fluid W C G Ashdowne
10 Normal Menstruation with Absence of the Body of the Uterus A Brown

8 **Vaccine Treatment of Double Pneumonia Following Childbirth**—Batten reports the case of a woman of 27 who had an attack of influenza with bronchitis, beginning three weeks before her confinement and from the effects of which she had not fully recovered Four days after delivery pneumonia began in the left side and on the fourteenth day after her confinement an alarming dyspnea occurred which was attributed to infarcts of the lung Examination of the sputum and also of swabbings of the uterus showed pneumococci From these organisms a vaccine was prepared and injected The patient's condition which had been desperate, improved forty eight hours after injection and a repetition of the vaccine treatment was followed by further improvement The opsonic index to the pneumococci which was 0 49 rose to 1 43 after the injection The injection of a double dose nine days after increased the index to 1 5 There was gradual convalescence and complete recovery In Batten's opinion her recovery was due to the vaccine injected

British Medical Journal, London

May 22

11 Early Diagnosis of Carcinoma of the Prostate C M Moullin
12 Diagnosis and Treatment of Some Common Inflammatory Affections of the Eye F P Henderson
13 *Partial Thyroidectomy T P Dunhill
14 Surgery of Lingual Thyroids W Stuart Low
15 Removal of Portions of Doubtful Tumors for Diagnostic Purposes A Leitch
16 Incidence of Morgan's Bacillus No 1 in the Normal Feces of Young Children J W H Eyre and E P Minett
17 Employment of Iodipin in Syphilis D Freshwater
18 Prostate Weighing Seventeen Ounces Removed by the Suprapubic Route A Fullerton
19 Jejunal Ulcer Following Gastrojejunostomy H J Paterson
20 Carbon Monoxid Method of Determining the Total Oxygen Capacity and the Blood Volume in Animals A E Boycott and C G Douglas

13 **Partial Thyroidectomy.**—Dunhill bases his conclusions on his experience in 113 operations in which partial thyroidectomy was performed in the great majority of cases (88) for exophthalmic goiter All the latter patients had been treated medically until it had become apparent to the physician or the patient that improvement was not taking place The author believes that in patients who are not definitely improving under medical treatment there can be no question as to the necessity for surgical interference so that a state of equilibrium as regards the output of thyroid secretion may be regained and maintained He believes that there is no need to fear death either at or following operation, provided it is performed under local anesthesia Dunhill divides the cases into four classes 1 Cases presenting all the classical signs, but without organic heart disease, in which the patients are still able to do some work 2 Cases with classical signs and organic changes in the heart 3 Cases with incompletely developed signs but often presenting great toxemia 4 Exophthalmic goiter secondary to ordinary goiter In regard to response to operative treatment, cases of the first class are very favorable Practically complete recovery can be promised and the period of convalescence is short Cases of the second class are usually regarded as too far advanced for operation but in Dunhill's opinion this statement is not true He would go so far as to say that no case, unless the patient is almost moribund, is too far advanced to obtain immense relief from operation The extent of relief is in inverse ratio to the extent of organic heart lesion Under local anesthesia the danger of the operation, even in the most advanced cases, is practically *nil* The third class of case he regards as the worst type to handle There appears to be an altered secretion and not simply an excessive one Removal of half the gland does not give the relief of certain symptoms that it affords in typical cases Every patient should be treated medically, for three months, and if there is continuous improvement medical treatment should be persevered with Operations should be performed as soon as it is recognized that the patient is not improving At the same time, it should be clearly recognized that it is practically never too late to operate, and that the operation in itself need never prove fatal if performed under local anesthesia Under general anesthesia the operation can not be recommended as safe Local anesthesia makes it possible to avoid injury to the recurrent laryngeal nerve, as the effect on the voice from pressure on this nerve may be immediately detected The danger of injury from vomiting is also much less The anesthesia is usually very good, though a little dragging sensation is felt while the deep connections of the gland are being divided As much gland substance should be removed as is necessary to effect a cure, but not more Usually one lobe and the isthmus should be removed at the first operation and half of the other lobe at a subsequent operation some months after the first Dunhill attributes his one death to the fact that he crushed a lobe before dividing it He believes that crushing the lobe causes a retention of toxic substances, the absorption of which may prove fatal Avoidance of crushing and free drainage are of the greatest importance. The severity of the operation is not to be underrated All handling should be of the gentlest nature The vessels are increased in number and size and they are very brittle If one gets off the track hemorrhage may be uncontrollable and, if the operation is prolonged, the bleeding is bound to be excessive.

Medical Press and Circular, London

May 19

21 *The Feeble-Minded and their Care. G. H. Savage.
22 *Blackwater Fever and the Intimate Pathology of Malaria. C. A. Bentley and S. R. Christophers.
23 Acute Multiple Sclerosis. H. Koch.
24 Some Enlargements of the Kidney. L. G. Gunn.

21. **The Feeble-Minded.**—Savage lays down the following principles: 1. All persons who, whatever the form or degree of their mental disorder, are unfit to take part in the struggle of civilized life, are to be considered as feeble-minded. 2. Persons suffering from disease should be looked on rather from the standpoint of disease than with the social view. 3. If the mentally weak are to be properly recognized and treated, their condition must be reported early. 4. The control or treatment must be continued as long as needed. 5. It is essential that the whole of the insane and weak-minded should be under one definite line of control.

He discusses at length the various phases of feeble-mindedness, and dwells on recurring insanity. Such individuals can not be considered as permanently insane. Heredity is the strongest factor in these cases. Children begotten of very aged fathers are often weakminded—not from age *per se*, but because aged lust is often a sign of lack of higher control. Simple consanguinity, as in the case of cousins, etc., is not an important point *per se*: but should there be neuroses in either branch, then it intensifies the effect. He concludes that some neuroses are much more readily transmitted than are others. There is a simple all-around feebleness. Such individuals are said to be easily led; to be wanting in will and in adaptability. All these simple things are readily transmitted. Anything allied to epilepsy seems also to be likely to be represented in the next generation by feeble-mindedness. One has also to remember the child who might otherwise have developed all right, but who is affected with some acute disorder in early life, especially if that disorder be a nervous one. With care, such children may be reared and trained to become useful members of society. One child having convulsions at 2 years of age has never been the same since. Many children become weak-minded as a result of some febrile attack. Savage saw a child who was said to have had meningitis. Meningitis is sometimes recovered from, but many children who have febrile attacks have not meningitis; but they may be left permanently weak-minded. An interesting point is the frequency with which feeble-minded children are found to have had, early in life, some interference with respiration. There is a history that the child was all right until it had measles, followed by bronchitis. A still more common occurrence is to find permanent mental enfeeblement follow whooping cough. That in itself is a nervous disorder.

22. **Blackwater Fever.**—Bentley and Christopher discuss the different species of material parasite, the question of blood destruction, and find that two distinct processes may result from the action of a hemolytic serum, which they name, respectively, erythrokatalysis and dysemia: (a) An easily produced and constant effect due to the holding up in the organs and ultimate phagocytosis of red cells. (b) A condition which may or may not supervene, characterized by actual solution of the cells within the blood stream, the accompanying hemoglobinemia being followed by the occurrence of hemoglobinuria. They conclude that in blackwater fever there is reason to believe that we are not dealing with the effects of a toxin elaborated by the malarial parasite, but with the action of substances produced by the human organism itself; in other words, with the effects of an autolysin. And if human autolysin is to occur, what diseased condition is more likely to produce it than malaria? Malaria actually gives rise within man's body to the very condition we try to bring about in the attempt to produce an autolysin experimentally. Under the circumstances which appear necessary for the occurrence of blackwater fever, it is obvious that repeated and persistent blood destruction and resorption must result, and, say the authors, we see again that if this hypothesis, which is only a hypothesis, be the true one, why the malignant tertian parasite, its special action on the red cells, and consequent stimulation to their phagocytosis, should above all be the one concerned in the causation of blackwater fever. This is hypothesis, but it may serve its purpose of indicating in a very broad and general way how blackwater may be malarial in origin and yet not be malaria.

Clinical Journal, London

May 19

25 Cancer of the Gall Bladder, Bile Ducts, and Duodenum. J. Bland-Sutton.
26 Gout and Its Treatment. W. Murrell.
27 Criminal Responsibility of Aments. A. F. Tredgold.

Dublin Journal of Medical Science

May

28 Local Anesthesia in Minor Surgery. W. I. de C. Wheeler.
29 Irish Recommendation of the Royal Commission on the Care and Control of the Feeble-Minded. W. R. Dawson.
30 *Atrophy of the Testicle. C. G. Cumston.
31 *Gas in the Stomach; Its Causation and Treatment. F. K. Cahill.

30. Published in The Albany Medical Annals, May, 1909, and abstracted in THE JOURNAL, May 29, p. 1793.

31. **Gas in the Stomach.**—Cahill deprecates the loose manner in which the terms fermentation and putrefaction are used in reference to flatulence. He contrasts them as follows:

FERMENTATION	PUTREFACTION
1. Involves carbohydrates.	1. Involves fats and proteids.
2. Produces acids mainly.	2. Produces alkalies mainly.
3. Numerous bacteria, especially long threads and yeasts or fungi.	3. Colon bacillus mainly.
4. Mainly in stomach or upper portion of alimentary canal.	4. Mainly in lower bowel and colon.

He enumerates and describes the various causal factors in the production of gastric gas, namely: (1) Air swallowing; (2) chemic gastric respiration; (3) mechanic gastric respiration; (4) inorganic production of carbon dioxid; (5) organic production of carbon dioxid and associated gases; (6) spasm of cardia or pressure from without. He urges more careful investigation in this class of cases, in place of the resort to routine mixtures for flatulence.

Journal of Laryngology, Rhinology and Otology, London

May

32 The Nasal Accessory Sinuses and the Optic Nerves. D. Grant.
33 *Erroneous Results from Testing Persons with only one Functional Ear. M. Yearsley.

33. **Erroneous Results of Testing with Only One Functional Ear.**—Yearsley says that from time to time cases have been shown, of persons hearing well after removal of the stapes or with serious labyrinthine lesions. He quotes the case of a child of 12, recently under his care, who had some carious bone removed, establishing a communication with the middle ear some years ago, and on whom he subsequently performed the radical mastoid operation, the patient making a slow recovery. In this case, the labyrinth had received sufficient damage to render the equilibratory portion functionally inactive, and it is at least doubtful whether the cochlea was intact, yet careful tests of the hearing, repeated by Yearsley himself, showed a large amount of hearing in the operated ear. The subsequent use of Barany's noise producer to the left ear, however, clearly demonstrated that the hearing of the right ear was *nil*, yet his patient, a sharp intelligent child, insists that she can hear with her right ear. Yearsley suggests that the reported wonderful cases of restoration of hearing after serious interference with the labyrinth are probably of this character.

Annales de l'Institut Pasteur, Paris

April, XXIII, No. 4, pp. 273-359

34 *Septicemic Form of Cerebrospinal Meningitis. Cohen (Brussels).
35 Paralyzing Action of Certain Acids on Perloxidiastase. G. Bertrand and M. Rozenband.
36 Physiologic Research on Papain. Its Rapid Digestive Action. Immunization of Animals. E. Pozerski. Commenced in No. 3.

34. **Septicemic Form of Cerebrospinal Meningitis.**—Cohen regards the microbe causing the syndrome of this form of meningitis as a special bacillus, previously confounded with the influenza bacillus. It is found in the blood and induces, besides the meningeal lesions, purulent effusions in serous cavities. The infection occurs by way of the upper air passages, and he was able to reproduce it thus at will in animals, to

vaccinate them against infection and to cure other animals with the serum of the immunized animals. In the three clinical cases reported, the first child had bronchopneumonia and left-sided purulent pleurisy besides the meningitis; the second, bronchopneumonia and empyema in the left maxillary sinus, and the third bronchopneumonia and a suppurating process in the left wrist.

Annales de Méd. et Chir. Infantiles, Paris

May 1, XIII, No. 9, pp. 289-324

37 *Gastric Diseases in Children. (Affections locales de l'estomac chez l'enfant.) R. Fischl.
38 Main Routes of Infection with Tuberculosis in Young Children. (Principales voies de tuberculisation chez le jeune enfant.) E. Terrien.
39 Scarlatinal Paralysis of Ocular Muscles. (Paralysies oculaires au cours de la scarlatine.) F. Terrien.

37. **Gastric Diseases in Children.**—Fischl is professor of diseases of children at Prague, and he here remarks that congenital stenosis of the pylorus and congenital megacolon are almost unknown in his country. He thinks that this has some connection with the universal prevalence of breast nursing. He deplores the way in which subacute and chronic catarrhal affections of the stomach in children are treated by old routine methods instead of utilizing the modern means of diagnosing chronic gastric affections and thus learning the bases for effectual treatment. One great mistake of parents is in considering milk as a drink instead of a food; the children are urged to drink it in addition to their regular food; a stomach affection may often be cured by merely restricting the child to a pint of milk in the twenty-four hours. The diet should be light; the meat should be chopped fine and vegetables given in the form of purées. Constipation should be combated by suppositories or enemas, and a wet pack should be applied around the abdomen and back when the child goes to bed, and left till morning. If necessary to stimulate the appetite, he orders 10 or 15 drops half an hour before meals of compound tincture of cinchona or bitter tincture, avoiding preparations containing alcohol and glycerin. In case of much anemia he gives a little iron, preferably a mixture of 1 gm. carbonate of iron with 5 gm. sugar, divided into ten doses, two of which are taken during the day in milk. The severest cases may require lavage of the stomach and complete fasting at first. In conclusion, Fischl expatiates on the importance of curing gastric affections in children, as many adults suffering from stomach trouble can trace its origin back into childhood.

Archives Générales de Chirurgie, Paris

April, III, No. 4, pp. 331-440

40 *Treatment of Severe Forms of Hypospadias and Epispadias by "Tunnelization" with Transplanted Flap of Skin as Lining for the new-formed Urethra. G. Nové-Josserand.
41 *Treatment of Aneurisms on the Limbs. Sencert. Commenced in No 3

40. **"Tunnelization" with Transplanted Flap in Treatment of Hypospadias.**—Nové-Josserand gives a minute illustrated description of his method of remedying hypospadias and epispadias. The only objections that have been made to this method are the insufficient caliber of the new-formed urethra and the persistence of a fistula at the junction of the new passage with the old. It is easy to remedy these if they occur, the results of the technic on the whole having proved extremely satisfactory in his hands It is applicable in all cases of loss of substance in the urethra, of traumatic or inflammatory origin, and it ensures a new and permeable urethral passage, of the proper length. The skin flap is cut from the thigh and is twisted spirally over a sound to form a tube with the raw side out, or is rolled up over the sound like a cigarette paper; the edges are caught together with very fine catgut. The sound with its outer tube of skin is then drawn into the new tunnel by means of a special clamp which bulges where it seizes the sound and skin tube, thus preventing dislodgement of the latter as the sound is pulled through the new tunnel.

41. **Treatment of Aneurism on the Limbs.**—Sencert gives a number of rules as to what arteries stand ligating, and the best points for the ligation, deduced from comparative study of cases in his own and others' experience, with other suggestions for treatment of aneurisms on arms and legs.

Bulletin de l'Académie de Médecine, Paris

April 27, LXXIII, No. 17, pp. 461-504

42 *Cerebrospinal Meningitis L. Vaillard.
43 *Emigrants and Trachoma at Paris. (Les émigrants et l'ophthalmie granuleuse à Paris.) A. Chantemesse.
44 *Eleven Cases of Abscess in the Brain. (Abcès du cerveau.) E. Boinet.

May 4, No. 18, pp. 505-560

45 *Cerebrospinal Meningitis. A. Netter.
46 *Prevention of Blindness. (Prévention de la cécité dans le travail.) Motais. Id. (Traitement de l'ophthalmie des nouveau-nés par le protargol.) Id.

42. **Cerebrospinal Meningitis.**—Vaillard states that during the first three months of this year 139 cases of epidemic cerebrospinal meningitis developed in 45 garrisons throughout France, with 38 deaths. The value of serotherapy was demonstrated in a number of the epidemics. The patient is isolated and his two neighbors in the dormitory are also isolated for 15 days, and all the men in the dormitory are kept apart from the other troops and are examined for the germs. The rooms are disinfected. Among 372 men thus isolated 72 germ-carriers were discovered, but only one of these carriers developed the disease later.

43. **Emigrants and Trachoma.**—Chantemesse says that 288 persons with trachoma have been treated at the Quinze-Vingts hospital during the last two years; most of them were emigrants passing through Paris on their way to America.

44. **Abscess of the Brain.**—Boinet gives the details of 11 cases, study of which shows that abscess of the brain is often the manifestation of a general infection or the direct action of germs from foci elsewhere. In some cases, the pneumococcus was found in pure cultures, in others a suppurative meningitis, and in one case the abscess in the right occipital lobe was the result of puerperal infection. Operative success depends on the stage of the abscess. When intervention occurs early, the abscess is encysted and occupies only the tolerant regions of the gray substance and psychomotor centers. Later than this, the abscess spreads and entails complications.

45. **Epidemic Cerebrospinal Meningitis.**—Netter has had 69 cases of epidemic meningitis in his charge and estimates that there have been fully 300 cases in Paris during the prevailing epidemic. He is enthusiastic over the benefits of serotherapy, stating that it not only attenuates and shortens the course of the disease, but seems to prevent the development of sequels. He used serum of six different makes, but found Flexner's superior to the others. He continues the injections for three or four days, even when the disease seems to be favorably modified by the first injections. In one case, he made 10 injections in the course of two weeks, injecting 265 c.c. of serum; treatment in this severe case did not commence until the tenth day of the disease. He advocates injecting the serum in every case suggesting the possibility of epidemic meningitis, without waiting for the results of bacteriologic examination. No harm followed the injection in several cases in his experience in which the disease proved to be of other origin. The injection was made into the lateral ventricle in 4 infants with contractures so severe that lumbar puncture was impossible or there was reason to suppose that the communication between the ventricle and the spinal canal was interrupted. The details of 48 cases are tabulated; the list includes one of his own children, a child of 11, promptly cured by 3 injections of Flexner's serum, a total of 90 c.c. He acknowledges that he was himself the carrier in this case; meningococci were cultivated from his own nasopharyngeal mucus. He had had an intense coryza during the few days before his child's illness, following a long call on a meningitis patient whom he sent to the hospital the same day. This was just five days before his child developed symptoms. Direct contagion seemed evident in 10 of his cases, but the rarity of familial cases, the long intervals between the cases, and the almost total absence of direct transmission during the course of the disease, seem to indicate that convalescents and healthy carriers are responsible for the propagation of the disease. Nothing observed suggests direct, immediate contagion, by places or objects, while everything is in favor of the intermediation of germ-carriers and transmission by old convalescents. He found that 25.7 per cent. of 35 persons examined in 11 families, including 2 well-to-do families, were

healthy carriers. In well-ventilated apartments, in hospitals, etc., the proportion of carriers is very small, and physicians and nurses are rarely attacked. There was only a single case of the kind in the recent Silesia epidemic with 3,700 patients. His experience has confirmed the assumption that the patients retain the meningococci only a short time, and it has also shown that meningitis, like pneumonia, displays a predilection for the winter and spring months, the maximum in March. There seems to be something in the season, he thinks, which exalts the virulence of the germs of these diseases in these special months, as also possibly of influenza, scarlet fever, mumps, etc. External influences modify the virulence of the meningococci and favor their diffusion, these influences being felt simultaneously over large areas of country and affecting the germs harbored by healthy carriers. This assumption explains the almost simultaneous development of meningitis epidemics in places without direct communication.

46. **Prevention of Injury of Vision in Various Trades and in the New-Born.**—Motais has found an alarming percentage of defective vision in certain trades requiring close application of the eyes or in which these organs are exposed to injury from fumes or dust, and suggests a number of measures for prophylaxis. His suggestions in regard to prevention of ophthalmia neonatorum were given in the Paris Letter, page 1849.

Presse Médicale, Paris

May 12, XVII, No. 38, pp. 337-344

47 *Osteomyelitis of the Spine. (Ostéomyélite vertébrale.) Kirmisson.
48 Ring Discoloration of the Skin. (Livedo annularis.) L.-M. Bonnet.

47. **Osteomyelitis of the Vertebræ.**—Kirmisson reports a case of vertebral osteomyelitis, the fourth he has encountered in his long practice. The patient was a little girl with a spindle-shaped tumor in the left dorsolumbar region, following the direction of the sacrolumbar muscles, and fully 15 cm. long by 7 wide, the lower end on a level with the iliac crest and the top reaching to the eleventh and twelfth dorsal vertebræ. The tumor was hot and fluctuating, slightly painful, but there was no suggestion of a tendency to a gibbus and the spine could be flexed readily. The tumor had developed in the course of fifteen days: the child had been suffering from chilblains during the month or two before. Puncture revealed numbers of staphylococci, and the child was at once anesthetized and the focus opened by a long incision, and the cavity cauterized with pure carbolic acid, neutralized with alcohol; drainage was provided. The child was soon cured. He adds that it is important in such cases to avoid touching the bones, as in all cases of osteomyelitis. The bones should be left intact, and the prognosis depends on whether they are involved or not, especially whether the lesion involves the body of the vertebra or the arches. If the spongiosa of the vertebræ is affected the lesion rapidly spreads and the vessels become involved, as also the venous plexus in and outside of the spine, with serious sequels and pyohemia. When the process is limited to the posterior segment, the prognosis is much more favorable. In 43 cases collected by Grisel in 1903 the body was involved in 22 with 22 deaths, and the arch alone in 21 with 16 recoveries. When the abscess is in the lumbar region the psoas muscle may become involved, with suppurative psoitis and destruction of muscular tissue; this has been observed a number of times in young children, but sequesters and fistulas are rare.

Semaine Médicale, Paris

May 12, XXIX, No. 19, pp. 217-228

49 *Comparative Differential Value of Orthodiagraphy and Percussion of the Heart in Pure Mitral Stenosis. (Valeur comparée de l'orthographie et de la percussion du cœur dans le rétrécissement mitral pur.) H. Vaquez and E. Bordet.

49. **Comparative Diagnostic Value of Orthodiagraphy and Percussion of the Heart.**—Vaquez and Bordet refer especially to differentiation of pure mitral stenosis, and show by twenty diagrams of the findings that these two methods of diagnosis supplement each other and should not be regarded as destined one to supplant the other; one may be applied when conditions render the other impracticable.

Berliner klinische Wochenschrift

May 10, XLVI, No. 19, pp. 862-908

50 *Chromocystoscopy. (Erfahrungen mit der Chromocystoskopie.) E. Joseph.
51 *Influence of Treatment on Serodiagnosis of Syphilis. (Die Wassermann'sche Reaktion und ihre Beeinflussung durch die Therapie.) F. Hoehne.
52 Staining Technic for Diagnosis of Syphilis. (Luesnachweis durch Farbenreaktion.) Symanski, Hirschbruch and Gardiewski.
53 *Prevention of Conception. (Ueber antikonzeptionelle Mittel.) F. Lehmann.
54 Diazo Reaction in Yellow Fever. (Diazoreaktion beim Gelbfieber.) C. Vargas and H. Seidelin.
55 Pathology of Secretion of Gastric Mucus. (Zur Pathologie der Magenschleimabsonderung.) L. v. Aldor. Commenced in No. 18.

50. **Chromocystoscopy.**—The Journal, Jan. 2, 1904, page 69, published a detailed description of this new method of testing the functioning of the kidneys by the elimination in the urine of a stain injected into the buttocks. Joseph here relates his experiences with it to date, and quotes other writers who after a period of skepticism are now using the test as a routine diagnostic measure (The Journal of Dec. 5, 1908, page 2005). He states that it has fulfilled all its promises and more, and frequently does away with the necessity for catheterization of the ureters and other functional tests. In seventeen cases in which the operation was done on the findings of chromocystoscopy alone, they were confirmed in every respect. A few minutes after injection of the stain the blue urine can be seen spurting from the ureter mouths. The interval before its appearance, the intensity of the stain, the number of jets to the minute, the force of the jet—all these points are borne in mind in comparing the urine from

the two kidneys. If one ureter eliminates dark blue urine while there is no trace of the stain in the urine from the other kidney, this may be due to obstruction by a stone, to compression of the ureter by an abscess or to such extensive destruction of kidney tissue that it is impermeable for the stain. It may be important then to catheterize the ureter. With an incipient tuberculous focus, the hyperemia may induce exaggerated functioning of the kidney at first, and bacteriologic examination of the urine is then more instructive than chromocystoscopy. But as soon as this stage is past, the change in the elimination of the blue urine is so striking that the surgeon can never mistake it. In one case reported, the diagnosis of a left tuberculous pyonephrosis was unmistakable, but the condition of the other kidney was dubious, as cystitic lesions rendered catheterization of the ureter impossible; the general condition was extremely bad, and there was considerable edema. Chromocystoscopy, however, showed that the right kidney was functioning normally, and the left kidney was successfully removed. A number of such instances are related where even cystoscopy was barely possible and the mouths of the ureters unfindable. The blue jet cleared away all doubts and permitted proper treatment. It shows whether the kidney is capable of taking up from the blood the urine-producing substances and of eliminating them in due amounts and time; this information is liable to be much more reliable than that obtained from catheterization of the ureters, as he illustrates by several examples. One particularly instructive case was that of a woman requiring nephrectomy on account of multiple abscesses. The blue jet from the other kidney was normal and this kidney functioned satisfactorily until the woman succumbed to an intercurrent affection when the remaining kidney was found extremely small and not fully developed, yet its functional capacity had been ample. If its condition had been known, the surgeon would never have dared

to trust to it. The chromocystoscopy is thus a guide to the true functional capacity of the organ, regardless of anything else. In high fever the urine may turn blue in one minute instead of requiring the usual interval of five minutes. He thinks that this suggests that the general conditions in the circulation have not been sufficiently regarded hitherto in functional tests of the kidneys. Joseph concludes his long article with an account of a case in which a woman complained of intense kidney stone colics, but he advised against operating, as the chromocystoscopic findings were normal. Stones voided in the urine and occasional hematuria were accepted by the surgeon, however, as sufficient reason for operating. The kidney was exposed, but found normal, and the woman confessed that she made up the stones out of tooth powder and blotting paper and pushed them into her bladder with a hairpin, with which she had also induced the hematuria.

51. **Serodiagnosis of Syphilis Under Influence of Treatment.**—This communication analyzes the findings in 1,512 cases of certain or suspected syphilis and 320 non-syphilitic patients. The findings confirm the specific importance of the test and show that energetic mercurial treatment is able to transform the positive into a negative reaction in a large proportion of cases. Calomel proved most energetic in this respect, with mercury salicylate next. A strong positive reaction was obtained in 23 out of 107 prostitutes, with apparently no signs or history of syphilis; the serodiagnosis is thus able to reveal syphilis in latent cases. Fourteen were given energetic mercurial treatment on the basis of the seroreaction alone, and in half of these the findings became negative by the end of the course. There were only 3 positive responses in the 320 control cases, and one of these patients had scarlet fever; another had scars suggesting a possibility of old syphilitic infection, and the third had a soft chancre which possibly may have been traceable to mixed infection.

53. **Means to Prevent Conception.**—Lehmann suggests that possibly the use of chemical means to destroy the spermatozoa may be responsible for certain deformities in the fetus as the spermatozoon may be injured while yet retaining vitality enough to fertilize the ovum.

Centralblatt fur die Grenzgebiete der Med. und Chir., Jena

May 14, XII, No. 8, pp. 289-320

56 *Stenosis of the Pylorus in Infants. (Die Pfortnerenge im Saugling salter.) W. Kaupe. Commenced in No. 5.

56. **Stenosis of the Pylorus in Infants.**—Kaupe has found 346 articles in the literature on this subject of congenital stenosis of the pylorus, and concludes from study of them that the etiology of the condition is still a mystery. The symptoms are sometimes ascribed to dyspepsia, atrophy, inanition, syphilis, etc., and the true cause ignored. When the vomiting is not accompanied by signs of indigestion, pyloric stenosis should be suspected, as also when the stools contain meconium and there is a tendency to constipation. Visible peristalsis in the stomach is an unmistakable sign, but it may require great patience to watch for it. Palpation of the hypertrophied pylorus (possibly under chloroform) and scanty urine further confirm the diagnosis, especially in connection with the failure of therapeutic measures. The consensus of opinion seems to be in favor of regarding the condition as exclusively belonging to the domain of internal medicine. Regulation of the diet is the main point according to most of the writers. Breast milk is preferable, drawn and given with a spoon, a little at a time every hour, supplemented possibly by lavage of the stomach. Carlsbad salts are recommended by some to prevent acidity, and opium by others, while some denounce it as liable to increase the acidity by promoting gastric secretion. Strumpell recommends atropin, Heubner tincture of valerian with a trace of opium. Magnesia proved beneficial in one case. A number of writers urge operation if internal measures do not promptly relieve, and cases are on record in which children three and five weeks old were successfully operated on.

Deutsche medizinische Wochenschrift, Berlin

May 13, XXXI, No. 19, pp. 825-864

57 *Is Muscular Dystrophy ever Curable? (Gibt es heilbare Falle von Distrophie?) E. Jendrassik.

58 Immunization against Hydrophobia with Normal Brain Substance. (Immunisierung gegen Wut mittels normaler Hirnsubstanz.) W. Kiajuschkin.

59 *Traumatic Neuroses. (Zur kritischen Symptomatologie der Unfallsneurosen.) E. Schlesinger.

60 *Cultivation of the Spirochaeta Pallida. (Züchtung der Spirochaete pallida Schaudinn.) J. Scheleschewsky.

61 Sunlight Treatment of Tuberculous Laryngitis. (Zur Therapie der Kehlkopf[illegible] mit besonderer Berücksichtigung der [illegible] Ein neuer praktischer Sonnenspieg[illegible]

62 Local Q[illegible] Treatment of Tuberculous Foci. (Lokale Chininbehandlung der Tuberkuloseherde.) O. Bey.

63 *Treatment of Ringworm with Ultraviolet Rays. G. Joachim.

64 *Perils of Hyperemic Treatment. (Ueber die Gefahren des Bierschen Stauungsverfahrens.) A. Schafer.

57. **Curable Dystrophia.**—Jendrassik adds two more to the few cases on record in which partial paralysis dating from childhood was evidently the result of insufficient developing power of certain elements, and when the organism entered on a phase of exceptionally energetic growth, these elements shared in the increased vitality and developed to such an extent as to restore conditions nearly to normal. In one of his cases the improvement was probably to be ascribed to the vigorous gymnastic exercises which the patient, a young man, perseveringly kept up. The familial nature of the dystrophy was peculiarly evident in this case, as the patient's sister, brother and uncle presented the same kind of disturbances, but in them they had continued a slowly progressive course to almost complete helplessness. His other patient was a girl of ten with insufficiency of muscular action with loss of tendon reflexes and weakness in the muscles of the back, abdomen and shoulders. Two years later great improvement was apparent; the tendon reflexes were normal or nearly so, and the girl was able to take part in mountain climbing, etc., although still somewhat awkward with her hands.

59. **Traumatic Neuroses.**—Schlesinger raises a warning voice that the symptoms ascribed to a traumatic neurosis are liable in many cases to be due to some pre-existing affection. He was able to examine 100 victims of various accidents in the textile trades within ten days of the accident, and he was amazed at the large proportion of pathologic conditions encountered. Only 22 of the 100 persons were found normal; 58 of the others had exaggerated tendon reflexes, attenuated in 6, with complete absence in 2, the visual field was normal in only 69, only 38 were free from dermography; 30 from tremor of the lids, and the pulse rate in 28 was abnormal. In one case the symptoms indicated intense neurasthenia, probably attributable to still manifest syphilis. If the man had not been examined early, before sufficient time had elapsed for development of a functional neurosis, the condition would have been regarded as a typical traumatic neurosis. His findings emphasize the importance of a complete examination as early after the accident as possible to detect pre-existing affections, and thus be able to separate them from new symptoms for which the accident is responsible.

60. See Berlin Letter, page 1850.

63. **Treatment of Alopecia Areata with Ultraviolet Rays.**—Joachim gives several illustrations to show the rapid improvement under phototherapy with the ultraviolet rays. Success was obtained in many cases in which previous measures applied for months had failed to benefit.

64. **Dangers of Constriction Hyperemia.**—Schafer calls attention to two cases which show that there is possible danger in the application of the constricting band. In one case the Roentgen findings proved misleading and constriction was applied for supposed ostitis and periostitis, when in reality the trouble was a sarcoma. The only effectual treatment, amputation, was postponed so long while hyperemia was being applied that he fears for the ultimate outcome in this case, and he warns others not to fall into this same error in similar cases of destructive processes in the bones. In the other case, neuritis developed in the radial nerve below the band, although there was no evidence of atrophy from the pressure.

Deutsche Zeitschrift fur Chirurgie, Leipsic

April, XCVIII, Nos. 4-5, pp. 311-391

65 Fatal Case of Torsion of Epiploic Appendix with Multiple Diverticula in Sigmoid Flexure. (Torsion eines Fettanhangs und multiple Darmdivertikel an der Flexure sigmoidea.) A. Ebner.

66 *Carcinoma of Common Bile Duct. (Choledochuscarcinom an der Papilla Vateri.) R. Morian.
67 Laparotomy by Transverse Incision in Posterior Rectus Aponeurosis. (Laparotomie durch Querschnitt in der hinteren Rektusscheide.) K. Winkelmann.
68 *Operative Treatment of Ascites with Cirrhosis of the Liver. Y. Soyesima.
69 Outcome of 38 Operations for Hydatid Cysts in Liver. (Erfolge der Leberechinococcus-Operationen an der I. chir. Universitätsklinik zu Budapest, 1897-1906.) G. von Lobmayer.
70 *Idiopathic Osteopsathyrosis. M. Matsuoka.
71 Pathology of Mammary Tumors, Especially Carcinomatous Degeneration of Fibroadenoma. (Zur Geschwulstlehre.) H. Kuru.
72 *Primary Tuberculous Splenomegaly. C. Ciaccio.
73 Operating for Cleft Palate with Peroral Tube. (Operation des Wolfrachens mittels peroraler Intubation.) F. Kuhn.
74 Suture of Aponeurosis, especially in Operations for Umbilical Hernia. (Experimentelle und histologische Beiträge zur Frage der Aponeurosennaht bei Laparotomien.) Esau.

66. **Carcinoma in the Common Bile Duct Near the Papilla.**—Morian has encountered four cases of this kind and performed a palliative operation in three, while a radical operation was possible in the fourth case, and the patient is still in good condition and well nourished, without signs of metastasis, nine months since the intervention. Patients with carcinoma of the papilla are generally seen late, when the cachexia is advanced and there is considerable cholemia, but more than half of the patients in the seven cases on record in which a radical operation was possible, survived the intervention. In his case transduodenal excision preceded the cholecystenterostomy.

68. **Anastomosis of Saphenous Vein to Peritoneum for Ascites.**—THE JOURNAL recently published (May 22, page 1183) an account of Ruotte's method of treating chronic ascites with cirrhosis of the liver by suturing to the peritoneum, just above Poupart's ligament, the peripheral end of the saphenous vein, severed 8 cm. above its mouth. Soyesima here reports from Kyoto three cases in which this treatment was applied with success in one case. He lauds this operation as an important addition to our surgical measures against ascites from cirrhosis of the liver. In the first case reported, the patient, a man of 38, feels constantly well, with no trace of ascites, and a year has elapsed since the operation which proved successful after omentopexy, decapsulation of both kidneys and continuous drainage of the abdominal cavity had failed to cure. In the other cases the ascites was the result of pericarditic pseudocirrhosis of the liver, and neither cardiolysis nor decapsulation of the right kidney, splenopexy or hepatopexy or the Ruotte operation gave relief; the latter failed also in the third case.

70. **Idiopathic Osteopsathyrosis.**—In Matsuoka's case the Roentgen rays showed eighteen fractures which had occurred in the course of two years; the patient was a girl of 6, whose older sister displayed the same tendency to abnormal fragility of the bones. The fractures occurred symmetrically. He insists that the affection has nothing in common with rachitis.

72. **Primary Tuberculosis of the Spleen.**—Ciaccio summarizes from the literature nine cases of a primary tuberculous process in the spleen and reports another from his own experience. His patient was a woman of 45, free from tuberculous antecedents or family history, and except that she was rather pale, seemed healthy and well nourished. A sensation of oppression and slight pain and tenderness in the spleen region had commenced about a year before, and the spleen was found enlarged. The symptoms were attributed to malaria, but quinin failed to benefit, and the spleen was exposed and a wedge cut out, after which the abdomen was sutured. The microscope revealed the tuberculous nature of the process and the presence of a few tubercle bacilli, and inoculated animals soon succumbed to miliary tuberculosis, so that splenectomy is advised.

Fortschritte der Medizin, Leipsic

April 30, XXVII, No. 12, pp. 449-480

75 Work Cure in Mental and Nervous Affections. (Arbeit als Kurmittel in der Psychotherapie.) A. Stegmann. Commenced in No. 11.
76 *Plastic Substitute for Lost Finger or Thumb and Palm. (Ersatz von verlorenen Fingern, insbesondere des Daumens, und Handtellerplastik.) K. Noesske.

76. **Plastic Substitute for Lost Finger or Thumb.**—Noesske has succeeded in restoring function, after complete loss of the right thumb, by forming a new thumb over a bayonet-shaped piece of bone taken from the tibia. The patient was a boy of 13, and the new thumb has been in use for nine months and shows no signs of absorption or shriveling. The thumb was made from a pedunculated skin flap from the chest, the pedicle cut after three weeks; the tip of the thumb was then modeled and sutured. Not until all this had healed was any attempt made to insert the bone support. Then the new thumb was incised and the piece of bone from the tibia introduced. It grew to the first metacarpal bone in three or four weeks, and there is now merely a linear scar. The boy can use his new thumb to good effect, writing well with it, and sensation is nearly normal. Noesske intends to transplant a nail from a toe to complete his work. He abstained from using a piece of rib for the support for several reasons, among them the fact that the rib tissue is liable to be more flexible and not so firm as the tibia. He reports a number of similar plastic operations on the hand.

Medizinische Klinik, Berlin

May 9, V, No. 19, pp. 687-722

77 Dieting for Over and Under Nourishment. (Ueber- und Unterernährungskuren.) L. Kuttner.
78 *Diabetic Balanoposthitis. O. Scheuer.
79 Torticollis after Removal of Adenoid Vegetations. (Ueber Schiefhals nach Entfernung der Wucherungen des Nasenrachenraums.) J. Weinstein.
80 Spinal Cord Diseases and Pernicious Anemia. (Rückenmarkserkrankung und perniziöse Anämie.) Boldt.
81 Mechanism of Carbonated Baths. (Verhalten der Kohlensäure in künstlichen und natürlichen Kohlensäurebädern.) K. Beerwald and R. v. d. Heide.
82 Measurement of Volume of Human Body at Different Periods. (Wachstum des menschlichen Körpergewichtes in den verchiedenen Lebensaltern. Volumenmessung von Lebewesen.) H. Friedenthal.

78. **Diabetic Balanoposthitis.**—Scheuer describes a case in which he was able to ward off the threatening phimosis by daily careful cleansing and mobilization of the prepuce. Cases are known of fatal gangrene after operations for diabetic phimosis. In his case the affection developed about the fifth year of the diabetes, and was treated at first on the assumption that it was of venereal origin, but without benefit. It finally subsided under more energetic antidiabetic measures.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

LEGAL MEDICINE AND TOXICOLOGY. By R. L. Emerson, A.B., M.D., Member of the Massachusetts Medico-Legal Society. Cloth. Pp. 593, with illustrations. Price, $5. New York: D. Appleton & Co., 1909.

FURTHER ADVANCES IN PHYSIOLOGY. Edited by Leonard Hill, M.B., F.R.S. Cloth. Pp. 440, with illustrations. Price, $4.20. New York: Longmans, Green & Co., 1909.

VACCINE AND SERUM THERAPY. Including also a Study of Infections, Theories and Immunity, Opsonins and the Opsonic Index. By Edwin Henry Schorer, B.S., M.D., Assistant Professor of Parasitology and Hygiene, University of Missouri. Cloth. Pp. 131, with illustrations. Price, $2. St. Louis: C. V. Mosby Co., 1909.

A POCKET FORMULARY. By E. Quin Thornton, M.D., Assistant Professor of Materia Medica in the Jefferson Medical College, Philadelphia. Edition 9. Flexible leather, with flap and pocket. Pp. 287. Price, $1.50. Philadelphia: Lea & Febiger.

BLUTUNGEN UND AUSFLUSS AUS DEM UTERUS: IHRE URSACHEN UND BEHANDLUNG. Von Hofrat Dr. A. Theilhaber. Paper. Pp. 87. mit 9 Figuren im text und 4 Tafeln. Price, 2.50 marks. München: Verlag von Ernst Reinhardt. 1909.

UNIVERSITÉ DE GENÈVE: SÉANCE SOLENNELLE DE DISTRIBUTION DES PRIX DE CONCOURS ET DE PRÉSENTATION DU NOUVEAU RECTEUR, 4 Juin, 1908. Rapports du Recteur et des Jurys; Allocution du Nouveau Recteur Précédés d'une Leçon Inaugurale sur les Caractères Distinctifs du Français Moderne. Paper. Pp. 81.

NINETEENTH ANNUAL REPORT OF THE EYE, EAR, NOSE AND THROAT HOSPITAL of New Orleans, La. 1908. Paper. Pp. 75.

MODERN MEDICINE. Edited by William Osler, M.D., Regius Professor of Medicine in Oxford University, England. Assisted by Thomas McCrae, M.D., Associate Professor of Medicine and Clinical [illegible] rsity, Baltimore. Vol. VI. Therapeutics in the [illegible] of the Ductless Glands—Diseases of the Urin [illegible] of the Muscles—Vasomotor Diseases of Obscure [illegible] and Trophic Disorders—Life Insurance. Cloth. Pp. 799, with illustrations. Price, $6. Philadelphia: Lea & Febiger, 1909.

PRACTICAL MEDICINE SERIES. Edited by Gustavus P. Head. Series 1909. Vol. III; The Eye, Ear, Nose and Throat. Edited by Casey A. Wood, C.M., M.D., D.C.L., Albert H. Andrews, M.D., Gustavus P. Head, M.D. Cloth. Pp. 366, with illustrations. Price, $1.50. Chicago: The Year-Book Publishers.

PROCEEDINGS OF THE ATLANTIC CITY SESSION

MINUTES OF THE SIXTIETH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT ATLANTIC CITY, N. J., JUNE 7-11, 1909

House of Delegates

First Meeting—Monday Morning, June 7

The House of Delegates convened in the Solarium of the Traymore Hotel at 10:30 a. m., and was called to order by the First Vice-President, Dr. T. J. Murray, Montana, in the absence of President Burrell.

In calling the House to order, Vice-President Murray said: I regret very much that President Burrell will not be here on account of illness, and in his absence he has asked me to preside.

Dr. H. Bert Ellis, California, presented the preliminary report of the Committee on Credentials as Chairman.

The Secretary called the roll, and seventy-four members responded.

THE FIRST VICE-PRESIDENT: The next in order is the presentation, correction and adoption of the minutes of the Fifty-ninth Annual Session.

DR. ALEXANDER R. CRAIG, Pennsylvania: I move that the minutes of the previous session be adopted as printed.

This motion was seconded by several and carried.

THE FIRST VICE-PRESIDENT: President Burrell's address will be read by the General Secretary.

President's Address

To the Members of the House of Delegates of the American Medical Association:

It is with many regrets that I have concluded to follow the advice of my medical advisers not to attend the meeting at Atlantic City. There are a few suggestions and some recommendations that I beg to make to your body.

A question has arisen as to the wisdom of increasing the number of the members of the Board of Trustees, and of adding the President of the Association *ex officio*. I believe that it would be a mistake to increase the number of the members of the Board of Trustees, or to make the President of the Association *ex officio* a member of the Board. During the last two years I have watched with great interest the work of this body, and I have been much impressed with the judicious care that its members have taken in formulating the policies of the Association. A larger body would be less apt to be conservative, and I take it that there should be in the Association a distinctly conservative body.

Recommendation 1.—I respectfully recommend that the President and President-elect of the American Medical Association be invited, and that all of their expenses be paid, to be present at all meetings of the Board of Trustees, in order that they may be conversant with the policies there formulated. The present need, to my mind, of the American Medical Association is a more closely knit organization, and the vesting of executive power in the hands of the Board of Trustees, delegated, as it must be eventually, to the General Manager of the Association.

I think that there are too many committees in the American Medical Association which are acting more or less independently of the Board of Trustees. It is true that they are controlled financially by the Board of Tustees, but this is not sufficient; their policies should be approved by the Board of Trustees. This is particularly true of the Committee on Medical Legislation, the Council of Medical Education and the Council of Pharmacy and Chemistry. Too frequently in the past well-defined policies have been presented by committees as if they were approved by the whole Association; such policies should be presented, before they are published, to the Board of Trustees for approval. The expenses of travel of the Committee on Medical Legislation, the Council on Medical Education and the Council of Pharmacy and Chemistry should be paid for by the Association. Small, special committees appointed for a year are undoubtedly of value, but the continuance of these committees over a number of years is unwise. Special committees have in the past been appointed by the sections, and it is my belief that these committees before publishing their reports, which too frequently appear to carry with them the authority of the whole Association, should be submitted to the Board of Trustees for approval.

The policies of all committees should be submitted to the Board of Tustees for its approval, but naturally the committees should always be answerable to the House of Delegates.

Recommendation 2.—I suggest that the defined policies of all committees and sections of the American Medical Association shall, before being issued to the public, be approved by the Board of Trustees.

Recommendation 3.—I suggest the expenses of travel of members of the standing committees, the Committee on Medical Legislation, the Councils on Medical Education and on Pharmacy and Chemistry be paid by the Association.

There is a growing tendency on the part of certain members of the Association to use political methods in influencing legislation, state and national. I believe that this movement is fraught with danger. If such work could always be done judiciously, well and good; but this influence is frequently exerted by members of the medical profession who are "babes in arms" politically. Their motives are excellent, but their discretion is open to question. The employment of one individual to serve as a lobbyist in Washington, or elsewhere, is a mistake; it is the adoption of trades-union methods, and will sooner or later bring the medical profession into discredit.

Recommendation 4.—I suggest that the Board of Trustees be requested to report to the House of Delegates at the meeting in 1910 their opinion as to the wisdom of separating the offices of Editor and General Manager and Secretary of the Association. The reason for this recommendation is not far to seek. At present the offices of Secretary and Editor and General Manager are held by one man, who, by force of circumstances, has turned on him the limelight of public opinion; he is believed to be, and as a matter of fact is, largely responsible for the policies of the Association. This is not right, nor is it fair to an individual man that he should have this great amount of seeming power placed in his hands. With the keenest possible scrutiny I have considered it my duty as President to observe the acts of your General Secretary during my years as President-elect and as President of the Association. I can report to you only that I think his work is admirable, that his acts have always been so far as was possible, judicious, and that he is deserving of the highest possible commendation for the remarkable conduct of an extremely trying double office. The recommendation that I have made as to the separation of these two offices may seem radical; all the more reason why the Board of Trustees should carefully consider and report to the House of Delegates in 1910 as to the expediency of carrying this measure into effect.

Gentlemen of the House of Delegates, the office of President of the American Medical Association is a great honor, but it should be distinctly understood that the President is practically a figure-head and not responsible for the policies of the Association. The Board of Trustees should be vested with the policies of the Association, always answerable to the House of Delegates.

I am sincerely grateful for the cordial support that you gave me last year at the Chicago meeting. My shortcomings as a presiding officer were overlooked, and a spirit of harmony prevailed which was conducive to good work. Sensible as I am that the honor of being the titular head of the medical profession of this great republic is one that can come to but few, the opportunity of meeting you gentlemen from north, south, east and west, has given me more pleasure than the honor you conferred on me.

The address was referred to the Reference Committee on Reports of Officers.

Reference Committees Appointed

The General Secretary announced the following Reference Committees:

COMMITTEE ON CREDENTIALS

H. Bert Ellis, California, Chairman.
E. W. Weis, Illinois. J. H. J. Upham, Ohio.
Oscar Dowling, Louisiana. D. Chester Brown, Connecticut.

REFERENCE COMMITTEE ON REPORTS OF OFFICERS

A. R. Craig, Pennsylvania, Chairman.
Donald Campbell, Montana. D. S. Fairchild, Iowa.
J. W. Pettit, Illinois. E. Denegre Martin, Louisiana.

REFERENCE COMMITTEE ON MEDICAL EDUCATION

George Dock, Section Practice of Medicine, Chairman.
H. D. Arnold, Massachusetts. W. W. Richmond, Kentucky.
A. Vander Veer, New York. Members of the Council on Medi-
Victor H. Stickney, North Dakota. cal Education, *ex officio.*

REFERENCE COMMITTEE ON AMENDMENTS TO CONSTITUTION AND BY-LAWS

H. Work, Colorado, Chairman.
Geo. W. Guthrie, Pennsylvania. Frank Paschal, Texas.
F. M. Crandall, New York. J. Shelton Horsley, Virginia.

REFERENCE COMMITTEE ON SECTIONS AND SECTION WORK

J. H. Carstens, Chairman, Section on Obstetrics.
S. S. Crockett, Tennessee. J. Howell Way, North Carolina.
L. M. Halsey, New Jersey. Thomas McDavitt, Minnesota.

REFERENCE COMMITTEE ON RULES AND ORDER OF BUSINESS

A. L. Wright, Iowa, Chairman.
C. H. Beecher, Vermont. H. F. Harris, Georgia.
J. Wythe Cook, Dist. of Columbia.

REFERENCE COMMITTEE ON LEGISLATION AND POLITICAL ACTION

Walter B. Dorsett, Missouri, Chairman.
G. L. Taneyhill, Maryland. James W. May, Kansas.
Edwin Walker, Indiana. J. W. Clemmer, Ohio.
Members of the Committee on Medical Legislation, *ex officio.*

REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

T. A. Woodruff, Chairman, Section on Ophthalmology.
J. H. Pierpont, Florida. J. D. Griffith, Missouri.
A. M. Hume, Michigan. John Champlin, Rhode Island.

JUDICIAL COUNCIL

C. E. Cantrell, Texas, Chairman.
J. H. Wilson, Delaware. H. A. Christian, Section Pathology
Harold Gifford, Nebraska. and Physiology.
C. S. Sheldon, Wisconsin.

REFERENCE COMMITTEE ON HYGIENE AND PUBLIC HEALTH

W. N. Wishard, Indiana, Chairman.
O. J. Brown, Massachusetts. G. B. Young, U. S. P. H. and
J. B. Bullitt, Mississippi. M.-H. S.
A. T. Bristow, New York.

THE FIRST VICE-PRESIDENT: The next in order is the report of the General Secretary.

The General Secretary presented his annual report as follows:

Report of the General Secretary

To the Members of the House of Delegates of the American Medical Association:

I submit herewith a report for the year 1908-1909:

MEMBERSHIP

The membership of the American Medical Association on May 1, 1908, was 31,343. During the past year 290 members have died, 1,439 have resigned, 484 have been dropped for non-payment of dues, 290 have been dropped as not eligible for membership under Section 1, Chapter I, Book I of the by-laws, and 55 names have been removed from the rolls on account of being reported "not found" or on account of mail returned by the postoffice department, making a total of 2,558 names to be deducted from the membership list. Since May 1, 1908, there have been added 5,150 names, of which 3,638 were subscribers to *The Journal* previous to becoming members of the association, while 1,512 were new members joining direct. The membership on May 1, 1909, was 33,935, making a net gain for the year of 2,592.

COMMITTEES APPOINTED AD INTERIM

Since the adjournment of the House of Delegates at Chicago on June 4, 1908, the following committees have been appointed by the president:

Committee on Patents and Trademarks: Charles S. Bacon, Chicago, Ill., chairman; Oliver T. Osborne, New Haven, Conn.; Philip Mills Jones, San Francisco, Cal.; A. B. Cooke, Nashville, Tenn.; H. C. Wood, Jr., Philadelphia, Pa.

Committee on Uniform Regulation of Membership in County and State Societies: Thomas S. McDavitt, St. Paul, Minn., chairman; Walter R. Steiner, Hartford, Conn.; Frederick R. Green, Chicago, Ill.

Committee on Elaboration of Principles of Ethics: Frederick C. Shattuck, Boston, Mass., chairman; George W. Guthrie, Wilkes-Barre, Pa.; Stuart McGuire, Richmond, Va.; Charles R. Bardeen, Madison, Wis.; Charles A. Powers, Denver, Colo.

Committee Appointed to Represent the American Medical Association at the Conference held at Washington on the Conservation of the National Resources: John H. Musser, Philadelphia, Pa.; William H. Welch, Baltimore, Md.; Abraham Jacobi, New York City.

Council on Defense of Medical Research: Walter B. Cannon, Boston, Mass., chairman; Joseph A. Capps, Chicago, Ill.; Harvey Cushing, Baltimore, Md.; David L. Edsall, Philadelphia, Pa.; Simon Flexner, New York City; Reid Hunt, Washington, D. C.; Herbert C. Moffitt, San Francisco, Cal.

Delegates to Represent the American Medical Association in the Council of the American Association for the Advancement of Science: George M. Kober, Washington, D. C.; George H. Simmons, Chicago, Ill.

Conference Committee on Drug Reform: Lewis S. McMurtry, Louisville, Ky., chairman; David R. Silver, Sidney, O.; J. Forest Burnham, Lawrence, Mass.

The death of Dr. Charles Harrington, of Boston, shortly after his appointment as a member of the Committee on Medical Legislation, created a vacancy on this committee as well as on the Board of Public Instruction on Medical Subjects. Dr. George W. Gay, of Boston, Mass., was appointed by President Burrell to fill Dr. Harrington's unexpired term on the Committee on Medical Legislation, and Dr. Myles Standish, of Boston, to fill his unexpired term on the Board of Public Instruction on Medical Subjects.

The secretary has been officially informed that the following members of the Anesthesia Commission were appointed by the Section on Surgery and Anatomy: J. G. Mumford, chairman, Boston, Mass.; J. F. Binnie, Kansas City, Mo.; C. A. Powers, Denver, Colo.; W. D. Haggard, Nashville, Tenn.; W. L. Rodman, Philadelphia, Pa. The various members of these committees were all notified of their appointments and acceptances were received from them.

COMMITTEE ON REAPPORTIONMENT

The by-laws provide (Section 3, Chapter IV, Book II, page 10) for a Reapportionment Committee in 1903, and every third year thereafter, consisting of the president, the secretary and three other members, whose duty it shall be "to examine the membership lists of the Constituent Associations and to determine therefrom the number of delegates to this Association to which each Constituent Association shall be entitled for the ensuing three years." The attention of the House of Delegates is therefore called to the necessity of appointing such a committe. I suggest that the appointment be made early in the session so that the committee may report to the House of Delegates as soon as possible.

REGULATION OF MEMBERSHIP

I also desire to call attention to the report of the committee appointed at the Chicago session on the Regulation of Membership. The importance of this subject is becoming more and more apparent as the membership of the Association and of its constituent state associations increases. If any consistent effort is to be made to enforce the constitutional provisions regarding membership, so that satisfactory results may be secured, it will be necessary to systematize and regulate this matter on a uniform basis throughout the entire organization. I therefore ask for the report of this committee the careful consideration of the House of Delegates, feeling that the question is one of the utmost importance to the future growth and development of the organization.

REVIEW OF THE LAST TEN YEARS

This session brings to a close a period of ten years during which the present incumbent has served the Association as General Secretary. It therefore seems not inappropriate that some brief review of the past decade should be made and a comparison of the conditions of medical organization in 1899 with those of 1909 instituted, in order that we may determine what progress has been made and what further advances remain to be achieved.

MEMBERSHIP

The membership of the American Medical Association in 1899 was 7,997. That on May 1, 1909, as shown in the report given above, was 33,935, an increase in the past ten years of 25,938 members or of 424 per cent., an average growth of approximately 2,600 per year. The increase in state society membership has been even more marked. Complete figures are lacking to show the membership of the various state societies in 1899. The following table, however, shows the membership of some of the state societies ten years ago and to-day:

	1899	1909	Increase
Colorado	326	739	226%
California	309	1,861	602%
Connecticut	660	872	132%
Florida	145	285	190%
Illinois	515	5,265	1022%
Indiana	1,561	2,587	165%
Iowa (Est.)	684	1,850	270%
Kentucky	500	2,231	446%
Louisiana	458	1,069	231%
Michigan	550	1,892	344%
Minnesota (Est.)	450	1,214	270%
Nebraska (Est.)	400	863	215%
New Hampshire	360	520	171%
New Jersey	854	1,400	163%
Ohio	885	3,962	450%
Tennessee	400	1,377	344%
Texas	297	3,100	1043%

These figures are incomplete, since in many cases it is impossible to find any record of membership of some of the state associations in 1899, but they show the advance that has taken place in the last ten years in many. As late as 1902, or only seven years ago, in the discussion which preceded the reorganization of the Association, the Committee on Reorganization stated that, as nearly as it was possible to determine, the total membership of all medical societies at that time approximated 34,000. To-day the combined strength of the associations constituent to the American Medical Association is 67,362.

ASSOCIATION PUBLICATIONS

In 1899 not a single state association owned and published an official state journal. To-day there are 19, as follows:

JOURNALS OWNED BY STATE SOCIETIES

Journal of the Arkansas Medical Society, Morgan Smith, Editor, Little Rock, Ark.

California State Journal of Medicine, Philip Mills Jones, Editor, Butler Building, San Francisco, Cal.

Colorado Medicine, George A. Moleen, Editor, Mack Block, Denver, Colo.

Illinois Medical Journal, George N. Kreider, Editor, Springfield, Ill.

Journal of the Indiana State Medical Association, A. E. Bulson, Jr., Editor, Ft. Wayne, Ind.

Journal of the Kansas Medical Society, James W. May, Editor, Kansas City, Kans.

Kentucky Medical Journal, A. T. McCormack, Editor, Bowling Green, Ky.

Bulletin of the Medical and Chirurgical Faculty of Maryland, H. O. Reik, Editor, Baltimore.

Journal of the Michigan State Medical Society, B. R. Schenck, Editor, Detroit, Mich.

Journal of the Missouri State Medical Association, E. J. Goodwin, Editor, Linmar Building, St. Louis, Mo.

Journal of the Medical Society of New Jersey, D. C. English, Editor, New Brunswick, N. J.

Journal of the New Mexico Medical Society, G. S. McLandress, Editor-in-Chief, Albuquerque, N. M.

New York State Journal of Medicine, Algernon T. Bristow, Editor, 17 W. Forty-third street, New York City.

Ohio State Medical Journal, J. H. J. Upham, Editor, 186 E. State street, Columbus, Ohio.

Oklahoma State Medical Journal, E. O. Barker, Editor, Guthrie, Okla.

Tennessee State Medical Journal, George H. Price, Editor, Nashville, Tenn.

Texas State Journal of Medicine, I. C. Chase, Editor, Fort Worth, Texas.

Journal of the South Carolina Medical Association, J. W. Jervey, Editor, Greenville, S. C.

West Virginia Medical Journal, S. L. Jepson, Editor, Wheeling, W. Va.

In addition to the journals named above, the Pennsylvania Medical Journal, while not legally the property of the Medical Society of the State of Pennsylvania, is practically the state association journal, while the following state associations have recognized certain journals as "official organs" in which the transactions of the associations appear: Louisiana, Minnesota, Mississippi, Nebraska, South Dakota, Virginia and Wisconsin. But few of the state associations still adhere to the Transactions which were formerly the only means of disseminating matters of society interest among the members.

OTHER BENEFITS OF REORGANIZATION

The increase in the effectiveness of reorganization in county, state and nation has been marked during the past decade. Medical education, instruction of the public, regulation of pharmaceutical and drug products, the publication of an official directory of the profession, the compilation of uniform laws for the different states, are all matters in which the Association has been vitally interested since the time of its organization, but action on which, up to a comparatively few years ago, was limited to the adoption of resolutions. While these vitally important questions are by no means solved as yet, a practical beginning has been made in the permanent and equitable solution of each of them, and the Association now has permanent boards, committees and councils, striving for a careful solution of these questions throughout the entire year, instead of having to be content with a hasty and inadequate consideration of the general problems and the adoption of resolutions at the annual session, as heretofore. While an enormous amount of work remains to be done, yet the Association can well feel that a beginning has been made toward the definite solution of many of these problems. We may certainly hope to see in the near future many of the questions which have vexed the profession and the public for years past definitely and permanently settled, permitting the profession to advance to greater possibilities of usefulness to its members and the public.

Respectfully submitted,

GEORGE H. SIMMONS,
General Secretary.

The report was referred to the Reference Committee on Reports of Officers.

Dr. William H. Welch, Maryland, Chairman, presented the report of the Board of Trustees as follows, which was referred to the Reference Committee on Reports of Officers:

Report of the Board of Trustees

To the Members of the House of Delegates of the American Medical Association:

The Board of Trustees in presenting this report for the year 1908 feels that the members of the Association have just reason to be proud of the work done and of the results accomplished, not only by THE JOURNAL, but also by the Association along the various lines which have engaged its activities. The past year has been the most successful year in the history of the organization from the financial as well as from the scientific, educational, legislative and philanthropic viewpoints. Concerning the finances of the Association, a clear, complete and comprehensive statement will be found in the report of the auditing company, appended hereto, and, therefore, it will not be necessary to consider further that phase of the subject here. The various tables which have been compiled illustrating the steady and commendable growth in all the administrative and mechanical features connected with the publication of THE JOURNAL likewise have been placed in the appendix where they may be studied, if desired, at leisure.

There are a number of matters, however, to which the Board feels your attention should be particularly directed at this time and first among these should be mentioned the work which has been done by your various councils and committees. Many of the committees will report directly to you and it is therefore not the intention to enter into the details of their work at this time but merely to state that few members of the Association realize the great amount of time, energy and work which the gentlemen who are serving gratuitously on these committees are constantly giving for the improvement and benefit of the profession as a whole and the community at large. The manner in which the committee of to-day *acts* and does things is in marked contrast to the manner in which the committee of a few years ago resolved and did nothing, and it is this spirit or desire to do something for the benefit of all that is one of the most encouraging features of our present organization. In order to encourage and facilitate the work of these committees your Board of Trustees appropriated for their use during the past year many thousands of dollars, and the Board feels that the excellent results of their labor have not only justified the expenditure but have entitled every member of these committees to the approbation and commendation of this Association.

COUNCIL ON PHARMACY AND CHEMISTRY

Concerning the committees that report directly to the House of Delegates, nothing further need be said here, but there is one committee, namely, the Council on Pharmacy and Chemistry, which reports to the Board of Trustees, and the Trustees take great pleasure in presenting briefly something of the results accomplished by the labors of the members of this Council, results alone made possible by the fact that the work, which could not have been bought with money, has been done largely gratuitously by men of the highest scientific attainments and imbued with a purely altruistic spirit. The work done by this Council has been enormous, and the good results are far-reaching in the highest degree. Some of the results of this work have been published in THE JOURNAL, and with this part of it you are all undoubtedly familiar, but much of it for many reasons, which are readily apparent, can not find its way into print.

The Council is constantly examining a large number of preparations with which the profession is being exploited, and weeding out the frauds and fakes so that the physician to-day need not be deceived by false representations of agents into using or administering anything with which he is not entirely familiar. Many of these fraudulent preparations are put on the market by so-called chemical houses which exist as such only on paper, and which are organized for the sole purpose of "working" the profession or the people, usually both, with the particular fraud in question. Were the exposure of these frauds the only work done by the Council it would still be invaluable, as it is a means of accomplishing that which heretofore had been practically impossible. But this after all is but a minor part of the Council's work. There are many preparations and products placed on the market with honest intent and purpose by perfectly reputable houses, which on thorough investigation by the Council are found either to be below standard or to fall below the claims conscientiously made for them by the manufacturers. On presentation to the manufacturers of the results of the investigations by the Council many of these preparations and products are modified or more carefully standardized, or the claims made to conform more carefully to the facts, or the preparations are taken off the market, so that not only physicians but the people as a whole are constantly being benefited to a degree not realized.

In addition to the great amount of work done by the several members of the Council in their respective laboratories, the Association, as is well-known, has a laboratory of its own in THE JOURNAL building, under the direct supervision of Professor Puckner, where analyses of all kinds of preparations are constantly being made. The work here has grown so rapidly and has reached such proportions that the Trustees recently authorized the employment of another chemist to help carry it on. It is impossible to over-estimate the value of this work. The physician is now no longer dependent on the exaggerated, extravagant, and often untruthful and absurd statements of the advertising agent for his knowledge concerning new products and preparations, but may obtain information from a trustworthy source, which has no other aim than to make known the facts in the case. The excellent work of this Council has received general recognition both at home and abroad. It has aroused the medical profession of Germany, which is beginning to take cognizance of conditions which were not realized until this work was commenced, and in the German journals acknowledgments are repeatedly made of the work that is being done on this side.

The Trustees at their annual meeting adopted a vote of thanks to the following gentlemen, not connected with the Council, for their aid and assistance in various investigations connected with the work of the Council:

Daniel Base, Ph.D., Professor of Chemistry and Vegetable Histology, Dept. of Pharmacy, University of Maryland.
William B. Day, Ph.G., Professor of Pharmacognosy, University of Illinois School of Pharmacy.
G. B. Frankforter, Ph.D., M.A., Dean of the School of Chemistry, Professor of Chemistry, University of Minnesota.
N. McL. Harris, M.B., Assistant Professor of Bacteriology, University of Chicago.
P. G. Heinemann, Ph.D., Assistant in Bacteriology, University of Chicago.
William A. Johnson, Ph.G., Instructor in Chemistry, Northwestern University Medical School.
E. O. Jordan, Ph.D., Professor of Bacteriology, University of Chicago.
Edward Kremers, Ph.G., Ph.D., Professor of Pharmaceutical Chemistry, Director of the Course in Pharmacy, University of Wisconsin.
Henry Kraemer, Ph.B., Ph.D., Professor of Botany and Pharmacognosy, Philadelphia College of Pharmacy.
Charles H. LaWall, Ph.M., Associate Professor of Theory and Practice of Pharmacy, Philadelphia College of Pharmacy.
S. A. Matthews, M.D., Assistant Professor of Experimental Therapeutics, University of Chicago.
Herbert N. McCoy, Ph.D., Associate Professor of Physical Chemistry, University of Chicago.
W. J. MacNeal, University of Illinois.
Charles H. Miller, Ph.G., M.D., Assistant Professor of Pharmacology, Northwestern University Medical School.
Atherton Seidell, M.D., Hygienic Laboratory, Public Health and Marine-Hospital Service, Washington, D. C.
A. L. Winton,, M.D., Chief Chicago Laboratory U. S. Department of Agriculture, Bureau of Chemistry.

WORK OF DR. MC CORMACK

So much that is good has been said of Dr. McCormack in the past that it is only necessary to say here that his excellent work has continued throughout the past year. We feel that he has been an educator of the profession, of legislators, and of the people, and a peacemaker to all.

THE AMERICAN MEDICAL DIRECTORY

The next subject presented for your consideration is that of the Directory. The work of revision, preparatory to publishing the 1909 Directory is at present well under way and the first forms will soon go to press. The intention is to improve the Directory with each succeeding edition. This year one of the improvements will be a more extended and complete college key table for quick reference. The college historical matter is greatly enlarged, and we believe the 1909 Directory will contain an historical review of the medical colleges and medical education of the United States more complete than can be found elsewhere. This has been obtained only after considerable labor. Additional personal information regarding individuals, such as college professorships and specialties, will be given. A large amount of additional matter has been secured since the first edition was published so that the 1909 edition will be found to contain many new personal data. The Directory should be regarded not primarily as a commercial enterprise, the fundamental reason for its publication being service to the profession and to the public. The Association is endeavoring to supply the medical profession and the public with an official register of the medical profession, comparable as an authority, for instance, to the Medical Register of Great Britain, combining, however, appropriate biographical and personal information so far as reliable data can be obtained. The book consequently should not be regarded in the first instance as a source of revenue but as an investment for the benefit of the profession and the public.

In this connection the enormous and increasing value of the mass of information of interest and accessible to the medical profession which is being accumulated, both personal and otherwise, must always be kept in mind. It is this personal information department which is really the basis as well as a raison d'être of the Directory.

The printed book contains only a small part of the large and constantly growing collection of data which is not only unequalled but which will be of ever increasing value to state boards, medical societies and the profession.

THE JOURNAL

THE JOURNAL during the past year has maintained its high standard of excellence. The practical and the scientific character of its articles, the broad scope of its editorials and the amount of general information from all parts of the land which it contains make it rank with the greatest medical journals of similar scope in the world. Notwithstanding the

fact that the advertisements submitted receive the most careful scrutiny, yet the constantly increasing circulation and the great popularity of THE JOURNAL as an advertising medium have made it possible for its pages to yield a larger revenue this past year than during any year heretofore.

ARCHIVES OF INTERNAL MEDICINE

The Board of Trustees in 1907 authorized the publication, beginning January, 1908, of the *Archives of Internal Medicine*, a journal devoted especially to the clinical and scientific phases of internal medicine. The fact that from the first it has succeeded beyond expectation is sufficient evidence that it has filled a want, but in spite of the fact that a certain number of more extensive and technical articles submitted to THE JOURNAL find an outlet in the *Archives*, THE JOURNAL is still overwhelmed with an abundance of material quite beyond its capacity to publish and therefore it is inevitable that a large number of suitable manuscripts must regretfully be returned to their authors. The circulation of the *Archives* is now about 1800, and the new journal is self-supporting.

NEW BUILDING

The Board of Trustees is called on to meet and handle many problems, but there is one question that continues to rise before it again and again. This is the question of working space in our building. When the present building was erected it was thought ample for our needs for a considerable time to come, but no one then dreamed of the work expanding so rapidly as it has. Three years ago the building was extended to the full depth of the lot and raised an additional story, which is all the walls will stand. The additional room thus acquired was soon fully occupied, and last year it became necessary again to enlarge our space by extending to the limits under the sidewalk and utilizing the space in one of our buildings next door. The relief, however, was relatively slight, and now we are once more confronted by the same problem, but in a more serious way. Additional space is urgently needed in practically every department. Since the councils and standing committees have become active working bodies and since the permanent working forces of these bodies have wisely been centralized in our own building, our entire clerical force has been augmented materially and is at present unavoidably crowded and badly quartered. We need more space for linotype machines and for our stereotyping department. We are working our men in two shifts of eight hours each and on rush days they are worked overtime in two shifts of ten hours, thus keeping our mechanical departments in operation for twenty hours out of the twenty-four. It is therefore not difficult to see the crowded and rushed conditions under which we are now laboring. Your Trustees have given this matter careful consideration for some time, and after thoroughly discussing the matter with our architects and with our general manager we are unanimously of the opinion that the only solution of the question is the erection of a new building large enough not only to accommodate us now, but to allow for our growth for many years to come. We already own the ground adjoining our present building and the available funds and securities will permit the construction and equipment of the building as proposed. In view of the urgent need of more room we believe the work should be undertaken at once. The matter is therefore submitted for your consideration. Owing to the great urgency, however, the Board has gone ahead and secured, provisionally, architects' plans and construction bids, believing that its action would meet with the approval of this body. The estimated cost of the new building, for which the plans will be submitted to the House of Delegates, including architects' fees, is approximately $200,000. The proposed building will be about sixty-one feet by one hundred and twenty feet, six stories, and a high basement. The foundation will be driven piles and concrete and steel used for foundation to basement floor line. The building will be absolutely fireproof and the walls will be made sufficiently strong to add at least two more stories. We regret that the architects were not able to furnish the elevation plans.

CONCLUSION

The Board, in conclusion, can not refrain from calling your attention to the fact that this meeting marks the close of the most remarkable decade in the history of the organization. For fifty years previous to this period the Association had struggled along, making good resolutions from year to year, but accomplishing only a very small part of the great ends and aims of its existence. THE JOURNAL, with a circulation of only a little over 10,000, had little standing as a scientific periodical and was seldom quoted by the great journals of the world. The assets of the Association were nominal and it was without a fixed home. The profession throughout the land was in an incoherent, unorganized state, an easy, helpless prey to the most glaring impositions and frauds. The various committees appointed by the Association rarely if ever met, except perhaps at the annual meeting and then generally only to draw up a hasty resolution which resulted in nothing being done. But with the beginning of the past decade a new life came into the organization. THE JOURNAL began to make most remarkable strides forward. Its circulation in the ten years increased 500 per cent. It reaches every quarter of the globe and stands without a peer as an educator in all things scientific, political, sociological and medicolegal which in any way relate to the work. It has erected, enlarged and outgrown one of the finest medical printing plants in the world and the Association's assets extend into the hundreds of thousands.

The Association, through its active committees, has made a most comprehensive study of medical education in this country and accomplished most positive results in elevating and standardizing the same. It has made itself felt in national legislation and aided in the molding of laws to just and righteous ends. It has laid bare innumerable frauds and made it impossible for them to be longer unknowingly perpetrated on the profession and the people. It is educating the masses in general matters pertaining to medicine through its Bureau of Public Instruction; it is stimulating scientific investigation by means of rewards for original medical research and commendable scientific exhibits. Through its initiation the profession of the United States has been reorganized, or rather, organized, into an intelligent, coherent body which has come to learn its rights, to know its power and to feel its duties and obligations. All of this and much more has been accomplished in the brief period of ten years, and your Trustees feel that they would be derelict in their duty did they not add with pride and sentiments of regard that the one man above all others to whom we are indebted for these great things is our present Editor and General Manager, Dr. George H. Simmons.

As was to be expected when the Council on Pharmacy and Chemistry began the work of exposing the medical frauds and fakes that for years had been foisted on an unsuspecting profession and an innocent public, it brought down on itself and the Association a torrent of ridicule and abuse from the proprietary and patent medicine interests that were so severely hit by the exposure of their dishonest products. For three years these interests kept up against the Association and its officers a fusilade of the most scurrilous invective and obloquy which money could buy. But all to no effect. The officers of the Association were firm in the belief that the vast majority of the physicians were at all times for right, and the good work continued uninfluenced in the slightest by these railings. Failing ignominiously of their purpose in these attacks and finding that the Association continued to grow in numbers and strength from day to day, the method of attack has changed recently. Instead of hurling the forces against the Association and its general officers a most malicious and vindictive attack has been made on the honor and personal character of one who has formed the central figure of our organization for the past ten years. The animus back of this attack and the interests that are aiding and abetting it are not difficult to understand, but it will be found that this attack, like those of the past, will be shattered on the impregnable rock of a great work well done, and it will but show that the American Medical Association is founded on the righteous integrity of the great body of physicians throughout this land and that it will endure.

Dr. T. J. Happel, a member of the board, was taken ill while attending our February meeting in Chicago and never recovered. He died May 24. The board desires to express its appreciation of the devoted and valuable services which Dr. Happel has rendered the Association. As a member of the Board of Trustees for eleven years and as its chairman for seven years, his advice and assistance were of incalculable benefit to his colleagues. By his death the American Medical Association has lost a devoted and indefatigable worker, the medical profession generally, an honored member, and the country a cultured and valued citizen.

Respectfully submitted:

WILLIAM H. WELCH, PHILIP MARVEL,
MILES F. PORTER, W. R. TOWNSEND,
M. L. HARRIS, PHILIP MILLS JONES,
W. W. GRANT, W. T. SARLES.

Addenda to Trustees' Report

SUBSCRIPTION DEPARTMENT

The regular weekly issue of THE JOURNAL of the American Medical Association, from Jan. 4, 1908, to Dec. 26, 1908, inclusive, 52 issues, was as follows:

January 4	52,880	July 4	53,238
January 11	52,674	July 11	53,169
January 18	52,360	July 18	53,620
January 25	52,189	July 25	53,412
	210,103		213,439
February 1	52,294	August 1	53,725
February 8	52,134	August 8	53,739
February 15	52,110	August 15	55,170
February 22	52,070	August 22	53,771
February 29	52,213	August 29	53,863
	260,821		270,268
March 7	55,021	September 5	53,798
March 14	54,840	September 12	53,896
March 21	54,915	September 19	53,746
March 28	54,514	September 26	53,779
	219,290		215,219
April 4	54,642	October 3	53,596
April 11	54,788	October 10	53,847
April 18	55,226	October 17	54,211
April 25	54,626	October 24	54,206
	219,282	October 31	55,230
May 2	58,076		271,090
May 9	53,470	November 7	55,333
May 16	53,224	November 14	55,525
May 23	53,304	November 21	55,317
May 30	53,575	November 28	55,655
	271,649		221,830
June 6	53,547	December 5	55,506
June 13	53,510	December 12	54,582
June 20	54,340	December 19	54,488
June 27	53,425	December 26	54,511
	214,822		219,087

Total issue for twelve months 2,806,900
Weekly average 53,978

The following statement is an approximate count of the mailing list of the members and subscribers by states on Jan. 1, 1909. It also shows the approximate percentage of physicians in each state receiving THE JOURNAL. It does not include copies sent to exchanges, to libraries, to the government services, or abroad:

State	Members	Subscribers	Totals	Approximate Per Cent.
Alabama	344	211	555	26.2
Arizona	88	49	137	67.4
Arkansas	368	344	712	30.6
California	1,142	534	1,676	42
Colorado	472	262	734	47.3
Connecticut	428	218	646	48.4
Delaware	57	20	77	34.6
Dist. of Columbia	297	215	512	46.5
Florida	152	88	240	38.7
Georgia	340	193	533	19.1
Idaho	75	54	129	49.7
Illinois	3,312	1,679	4,991	52.9
Indiana	1,203	803	2,006	40.8
Iowa	1,061	584	1,645	46.7
Kansas	591	403	994	42.8
Kentucky	741	500	1,241	32.9
Louisiana	386	265	651	41.9
Maine	251	137	388	34.7
Maryland	513	453	966	53.3
Massachusetts	1,702	575	2,277	42.3
Michigan	1,060	815	1,875	46.1
Minnesota	839	556	1,395	71.6
Mississippi	267	236	503	28.5
Missouri	1,294	764	2,058	34.5
Montana	127	80	207	61.7
Nebraska	463	254	717	42.9
Nevada	48	25	73	52.8
New Hampshire	231	58	289	44.7
New Jersey	634	246	880	37.7
New Mexico	93	64	157	71
New York	3,141	1,589	4,730	39.4
North Carolina	241	214	455	31.3
North Dakota	182	150	332	73.6
Ohio	2,060	1,017	3,077	39.9
Oklahoma	365	335	700	37.4
Oregon	205	129	334	47.9
Pennsylvania	2,744	1,483	4,227	42.3
Rhode Island	217	97	314	43.1
South Carolina	187	139	326	31.8
South Dakota	195	129	324	59.4
Tennessee	440	225	665	22.3
Texas	1,067	624	1,691	35.04
Utah	102	78	180	59.2
Vermont	166	36	202	31.2
Virginia	369	333	702	36.09
Washington	368	240	608	59.4
West Virginia	355	158	513	36.4
Wisconsin	865	472	1,337	55
Wyoming	49	35	84	48.2

TEN YEARS' GROWTH

As this ends ten years under the present management, the following information covering that period may be of interest.

This table shows the number of members and of subscribers for each year, commencing with 1899:

	Members	Subscribers
January 1, 1899	7,997	2,453
January 1, 1900	8,445	4,633
January 1, 1901	9,841	8,339
January 1, 1902	11,107	10,795
January 1, 1903	12,553	12,378
January 1, 1904	13,899	14,674
January 1, 1905	17,570	15,698
January 1, 1906	20,826	17,669
January 1, 1907	26,255	20,166
January 1, 1908	29,382	20,880
January 1, 1909	31,999	*18,983

* This is not an actual loss, as 4,062 subscribers were transferred to the membership during the year 1908.

The following is the total weekly average issue for ten years:

Year	Issue
1899	13,672
1900	17,446
1901	22,049
1902	25,321
1903	28,615
1904	32,423
1905	38,006
1906	46,479
1907	52,217
1908	53,978

It will be noticed that the average gain last year fell off to some extent. This is accounted for principally by the issuance of a new order by the postoffice department regarding second-class rates which was to the effect that weekly journals can not be sent to subscribers and retain second-class rates where more than one year's credit is allowed. This order made it necessary to curtail the time given under certain conditions to subscribers, and consequently to drop a large number of names.

The following shows the steady increase of expenditures on three important items:

PAY ROLL AND SALARY

1899	$ 31,448.69
1900	37,359.49
1901	40,416.01
1902	46,316.65
1903	57,067.34
1904	64,471.26
1905	78,874.79
1906	96,578.71
1907	110,455.43
1908	123,893.28

PAPER STOCK

1900	$ 25,598.00
1901	29,835.00
1902	35,675.06
1903	43,966.57
1904	51,190.05
1905	57,526.69
1906	65,381.17
1907	89,546.80
1908	106,495.12

POSTAGE ON JOURNAL

1899	$ 3,905.65
1900	5,616.06
1901	7,591.37
1902	8,595.63
1903	9,828.41
1904	11,773.44
1905	14,360.28
1906	17,066.62
1907	19,203.65
1908	20,197.88

Treasurer's Report

REPORT OF THE TREASURER FOR THE YEAR ENDING DEC. 31, 1908

RECEIPTS

1908	
Jan. 1—Cash balance in First National Bank of Chicago	$20,118.81
Feb. 7—Cash received from Editor of JOURNAL	20,000.00
June 6—Cash received from Editor of JOURNAL	10,000.00

Sept. 9—Interest 3 per cent. on certificate of deposit in First Trust and Savings Bank	487.50
Dec. 19—Interest 3 per cent. on certificate of deposit in First Trust and Savings Bank	940.27
Interest 2 per cent. on checking account in First National Bank	173.85
Interest on coupons 54, $1,000 bonds at 4 per cent	2,160.00
	$53,880.46

DISBURSEMENTS

1908	
Feb. 7—By order of Trustees placed on certificate of deposit at 3 per cent. in First Trust and Savings Bank	$30,000.00
June 6—By order of Trustees placed on certificate of deposit at 3 per cent. in First Trust and Savings Bank	10,000.00
Sept. 9—By order of Trustees placed on certificate of deposit at 3 per cent. in First Trust and Savings Bank	10,000.00
1909	
Jan. 1—Cash balance in checking account First National Bank	3,880.46
	$53,880.46

PROPERTY OF AMERICAN MEDICAL ASSOCIATION IN HANDS OF TREASURER JAN. 1, 1909

Cash balance in checking account First National Bank			$ 3,880.46
Cash on certificate of deposit at 3 per cent. in First Trust and Savings Bank			65,000.00
	Cost.	Par Value.	
5/1000 bonds U. P. Ry., 1st 4s	$ 5,207.50	$ 5,000	
5/1000 bonds Erie Ry., 1st 4s	4,932.50	5,000	
10/1000 bonds Reading Gen. 1st 4s.	9,602.50	10,000	
14/1000 bonds Chicago School 1st 4s	15,168.13	14,000	
10/1000 bonds A. T. & S. Fe 1st 4s	9,521.25	10,000	
10/1000 bonds B. & O. Ry 1st 4s	9,800.00	10,000	
	$54,231.88	$54,000	54,000.00
			$122,880.46

Respectfully submitted,

FRANK BILLINGS, *Treasurer.*

Auditors' Report

THE INVESTORS AUDIT COMPANY

CHICAGO, FEB. 4, 1909.

To the Board of Trustees of the
American Medical Association, Chicago, Ill.

Gentlemen:

We beg to report that we have examined the books and vouchers of the American Medical Association for the year ending December 31, 1908, and we hand you herewith the following statements:

Comparative Balance Sheet as at Dec. 31, 1907 and 1908.
Revenue Account for the year ending Dec. 31, 1908.
Disposition of Revenue for the year ending Dec. 31, 1908.
Summary of Investment in Second Edition of Directory as at Dec. 31, 1908.
Summary of Inventories as at Dec. 31, 1908.
Details of Bond Account as at Dec. 31, 1908.
Summary of Publication Expenses for the year ending Dec. 31, 1908.
Summary of Organization Expenses for the year ending Dec. 31, 1908.
Summary of Association Expenses for the year ending Dec. 31, 1908.
Summary of Medical Legislation Expenses for the year ending Dec. 31, 1908.
Summary of Medical Education Expenses for the year ending Dec. 31, 1908.
Summary of Pharmacy and Chemistry Expenses for the year ending Dec. 31, 1908.
Summary of Medical Research Expenses for the year ending Dec. 31, 1908.
Summary of Depreciation for the year ending Dec. 31, 1908.

As in former years the book values of Buildings, Furniture and Fixtures, etc., have been reduced by charges against Income to provide for Depreciation.

On the other hand we would call your attention to the fact that there has been charged during the year under review to Buildings Account an amount of $4,325.20. This represented largely the cost of altering an old residence adjoining the main building of the Association to enable it to be used in connection with the latter for business purposes. It is probable that an arrangement of this kind will not be permanent so that the amount whereby the actual value of the buildings has been increased by these expenditures is questionable.

We would call your attention to the item carried among the Assets on the Balance Sheet representing the expenditures to date on the second edition of the Directory. Inasmuch as the Directory has not yet been issued, it is technically proper to carry this amount as an Asset, but in view of past experience it seems quite probable that a portion of it will eventually be charged off Profit and Loss Account.

We would call your attention to the following items included in the statements attached:

In the Balance Sheet is shown among the Assets "Net Investment in Second Edition of Directory $14,801.87," which represents the total expenditures to the close of the year for labor, material, etc. used in preparing the second edition not yet distributed. Details of this account are shown in "Schedule A" attached hereto.

We believe that the other items included in the statements do not need any special comment.

In the course of our audit we examined vouchers for all cash disbursements with the exceptions of a few made during the latter part of the year, vouchers for which had not been returned by the bank at the time of our visit. These we will take up later and report upon if it appears necessary.

In checking the vouchers for disbursements we took care to examine invoices or other evidence that the items covered by them represented proper liabilities of the Association, and that there had been proper authority for the payments of the same by the Officers.

We verified the cash in bank by means of statements furnished by the bankers and that on hand by actual count. We verified the securities by means of certificates furnished by the bankers in whose care they were deposited.

In the course of the audit we made tests of the lists of subscribers, which tests resulted in no inaccuracies being discovered.

We also did certain other work which appeared advisable for the protection of the Association.

We are of the opinion that the bookkeeping and office work are handled in a very efficient manner and that every attempt is being made to conserve the interests of the Association by the employees connected with the Accounting Department.

We would be pleased to furnish you with any further information in our possession that you may require regarding these accounts.

Yours faithfully,

THE INVESTORS AUDIT COMPANY,

———Manager.

COMPARATIVE BALANCE SHEET AS AT DECEMBER 31, 1907 AND 1908

ASSETS

Dec. 31, 1907			Dec. 31, 1908
$112,937.04	Real Estate and Buildings		$117,262.24
49,006.76	Machinery		45,535.59
1,646.95	Stereoptype Plant		1,509.25
7,293.06	Furniture and Fixtures		8,301.24
1,175.16	Library		1,185.61
5,809.24	Net investment in Second Edition of Directory (see Exhibit A)		14,801.87
19,151.70	Inventory of materials and supplies (see Exhibit B)		23,059.13
54,231.88	Bonds at cost (see Exhibit C)		54,231.88
15,000.00	Certificates of deposit		65,000.00
13.50	Bills Receivable		10.00
18,302.98	Accounts Receivable:		
	Chicago Postmaster deposit	$ 480.00	
	Advertising	14,878.16	
	Sundry	933.70	
	Reprints	1,263.10	
	Directory (proportion considered good)	100.00	
			17,654.96
	Unexpired Insurance		621.02
24,577.79	Cash:		
	Treasurer's account	$ 3,880.46	
	Office	2,710.75	
	Petty cash	50.00	
			6,641.21
250.00	Rent paid in advance (Exhibit hall)		
$309,306.06			$355,814.00

LIABILITIES

$ 7,435.41	Accounts payable	$ 120.71
	Advance Payment on "Archives of Internal Medicine"	834.07
	Advance payments on Second Edition of Medical Directory	191.40
301,650.15	*Balance*: Being excess of assets over liabilities	354,667.82
$309,306.06		$355,814.00

REVENUE ACCOUNT FOR THE YEAR ENDING DECEMBER 31, 1908

INCOME:			
Advertising		$ 132,993.37	
Subscriptions		100,883.74	
Dues		134,509.80	
Jobbing		30,352.60	
Reprints		7,938.96	
Books		7,038.69	
Physicians Manual of U. S. Pharmacopeia and N. F.		4,435.30	
Buttons		1,796.18	
Rents of Association properties		2,740.00	
Sale of waste paper, sweepings, paper cases, etc.		2,863.31	
Chicago Session		370.78	
Interest:			
Bonds	$2,160.00		
Certificate of Deposit	1,601.62		
Daily Bank Balance	555.43		
		$ 4,317.05	
			$ 430,239.78
DEDUCT:			
Publication expense (see Exhibit D)		$ - 308,647.67	
Organization expense (see Exhibit E)		12,227.15	
Association expense (see Exhibit F)		6,727.37	
Medical legislation (see Exhibit G)		2,511.95	
Medical education (see Exhibit H)		4,418.31	
Pharmacy and chemistry (see Exhibit I)		6,587.01	
Defense of medical research (see Exhibit J)		133.61	
Depreciation (see Exhibit K)		8,438.97	
Books		6,270.18	
Physicians' manual of U. S. Pharmacopeia and N. F.		2,915.71	
Buttons		1,334.44	
Insurance and Taxes		2,266.17	
Discount		1,235.88	
Exchange		1,242.40	
Building maintenance		1,226.52	
House Expense		389.97	
Commissions for securing new members		398.40	
Bad debts written off less recoveries		1,320.87	
Educational		1,111.74	

Loss on sale of machinery	40.78	
Wages account of Biographical card work and Directory information	2,589.26	
		$372,034.36
Net revenue for the year ended Dec. 31, 1908		$ 58,205.42

Disposition of Revenue for the Year Ended Dec. 31, 1908

Increase in Assets:		
Real estate and buildings	$ 4,325.20	
Furniture and fixtures	1,108.63	
Inventory	3,907.43	
Certificates of deposit	50,000.00	
Unexpired Insurance	621.02	
Net investment in second edition of Directory	14,180.38	
		$ 74,142.66
Add: Decrease in Liabilities:		
Acounts payable	7,314.70	
		$ 81,457.36
Deduct: Decrease in Assets:		
Depreciation on machinery	$ 3,471.17	
Depreciation of Stereotype plant	137.70	
Accounts receivable	651.52	
Cash	17,936.58	
Rent, paid in advance	250.00	
		$ 22,446.97
Increase in Liabilities:		
Advance payments on "The Archives of Internal Medicine"	613.57	
Advance payments on second edition of American Medical Directory	191.40	
		$ 804.97
		$ 23,251.94
Net revenue for year ended Dec. 31, 1908		$ 58,205.42

EXHIBIT A

Summary of Net Investment in Second Edition of Directory as at Dec. 31, 1908

Salaries	$ 8,777.28
Postage	2,421.11
Jobbing	1,554.15
Commissions	1,395.01
Sundry expense	654.32
	$ 14,801.87

EXHIBIT B

Summary of Inventories as at Dec. 31, 1908

Paper Stock	$ 7,366.00
Books	2,278.91
Physicians' Manuals	108.50
Buttons	378.20
Fuel	164.00
Ink	218.30
Type	3,862.59
Metal	6,080.63
Stamps	2,602.00
	$ 23,059.13

EXHIBIT C

Details of Bond Account as at Dec. 31, 1908

	Par Value	Cost
5 Atchison, Topeka & Santa Fe Ry. Co. 4 per cent. 100-year gold bonds	$ 5,000.00	$ 4,988.75
5 Erie R. R. Co. 4 per cent. gold bonds	5,000.00	4,932.50
5 Baltimore & Ohio R. R. first mortgage 4 per cent. bonds	5,000.00	5,032.50
5 Reading Company general mortgage 4 per cent. bonds	5,000.00	4,870.00
5 Union Pacific R. R. Co. first Mortgage 4 per cent. bonds	5,000.00	5,207.50
14 City of Chicago 4 per cent. school bonds	14,000.00	15,168.13
5 Reading Company and the Philadelphia and Reading Coal and Iron Co. general mortgage 4 per cent., payable January and July, Nos. 29367, 29366, 24483, 24482, 66964, par value of $1,000.00 each at 94½	5,000.00	4,732.50
5 Atchison, Topeka & Santa Fe Ry. Co. first mortgage 4 per cent. bonds payable April and October. Principal due 1995. Nos. 32785, 35162, 40517, 40516, 40515. Par value of $1,000.00 each at 90½	5,000.00	4,532.50
5 Baltimore & Ohio R. R. Co. first mortgage 4 per cent bonds payable April and October. Principal due 1948. Nos. 53591, 53594, 53593, 34986, 34987. Par value of $1,000.00 each at 95	5,000.00	4,767.50
	$54,000.00	$54,231.88

EXHIBIT D

Summary of Publication Expenses for the Year Ending Dec. 31, 1908

		$106,495.12
Paper		4,668.22
Type, metal and electros		3,466.59
Ink		38,165.96
Salaries		85,727.32
Pay roll		7,764.74
Editorial news and reporting		3,088.91
Binding		2,638.79
Machinery repairs and renewals		11,537.36
Commissions		
Power		2,117.54
Light		2,026.28
Fuel		1,039.32
Postage:		
First class	$ 8,652.14	
Second class	20,197.88	
		28,850.02
Factory supplies		2,563.88
Office supplies		549.65
Office jobbing		2,280.71
Express and cartage		2,374.69
Telegrams and telephone	$ 358.55	
Legal expense	270.00	
Traveling expense	566.55	
Miscellaneous expense	2,097.47	
		3,292.57
		$308,647.67

EXHIBIT E

Summary of Organization Expenses for the Year Ending Dec. 31, 1908

Dr. J. N. McCormack:		
Salary	$ 5,583.30	
Expense	1,726.75	7,310.05
Dr. J. H. Blackburn:		
Salary	600.00	
Expense	212.00	
		812.00
Agents' salaries		3,425.50
Jobbing		613.00
Miscellaneous		66.60
		$ 12,227.15

EXHIBIT F

Summary of Association Expenses for the Year Ending Dec. 31, 1908

Scientific Research		$ 600.00
Scientific Exhibit		482.00
Scientific Exhibit, medals		218.75
Trustees' meeting		672.65
Secretary Board of Trustees		100.00
Reporting Sections		1,447.18
Section Secretaries		600.00
Reporting House of Delegates		294.70
Public Instructions:		
Dr. Max Goepp:		
Salary	$800.00	
Expense	77.55	
		877.55
Salary Assistant to Secretary		891.67
Jobbing		304.45
Treasurer's bond—premium		50.00
Care of bonds		40.00
Judicial Council		25.00
Safety box rentals		10.00
Binding Journals		44.00
Express		36.88
Stamps		23.04
Supplies		9.50
		$ 6,727.37

EXHIBIT G

Summary of Medical Legislation Expenses for the Year Ending Dec. 31, 1908

Dr. C. A. L. Reed:	
Traveling expenses, clerk hire, etc.	$ 782.88
Salaries and pay roll	1,323.67
Meetings	110.75
Reporting	115.70
Jobbing	101.55
Postage	61.22
Information	7.50
Express	4.68
Supplies	4.00
	$ 2,511.95

EXHIBIT H

Summary of Medical Education Expenses for the Year Ending Dec. 31, 1908

Salaries and pay roll	3,050.70
Meetings	520.07
College inspection	404.55
Charts	52.00
Information	37.00
Jobbing	115.80
Stamps	197.25
Supplies	40.94
	$4,418.31

EXHIBIT I

Summary of Pharmacy and Chemistry Expenses for the Year Ending Dec. 31, 1908

Salaries and pay roll	$5,311.10
Chicago session	468.73
Drugs	229.73
Analysis	90.00
Supplies	171.20
Stamps	158.72
Jobbing	135.05
Express	22.43
	$6,587.01

EXHIBIT J

SUMMARY OF MEDICAL RESEARCH EXPENSES FOR THE YEAR ENDING DEC. 31, 1908

Philadelphia convention	$ 69.00
Dr. Cannon	16.95
Books and Reprints	35.72
Supplies	7.25
Express	3.22
Stamps	1.47
	$133.61

EXHIBIT K

SUMMARY OF DEPRECIATION FOR THE YEAR ENDING DEC. 31, 1908

Buildings	$2,329.11
Machinery	5,059.50
Furniture and fixtures	783.49
Laboratory equipment	98.87
Stereotype plant	167.70
	$8,438.97

DR. ARTHUR T. MCCORMACK, Kentucky: I move that when the House of Delegates adjourns, that it adjourn in honor to the memory of Dr. T. J. Happel, a former member of this body and of the Board of Trustees.

This motion was seconded by several and carried.

THE FIRST VICE-PRESIDENT: We will now listen to reports of the standing committees.

Report of Judicial Council

To the Chairman and Members of the House of Delegates:

The Judicial Council would respectfully report that there has been nothing come before it on appeal from county societies nor state associations. The Chairman has received a few letters of inquiry and requests for interpretations of the principles of ethics, which have easily been disposed of by sending marked copies of the Principles of Ethics, together with instructions to make inquiry of their state associations and county societies for any local additions to these principles.

Respectfully submitted,

C. E. CANTRELL, Chairman.

DR. ARTHUR T. MCCORMACK, Kentucky: I move that the Chairman appoint a committee of three on Triennial Reapportionment.

Seconded and carried.

THE FIRST VICE-PRESIDENT: I will announce this committee later.

Report of the Committee on Medical Legislation

The report of the Committee on Medical Legislation was read by Dr. Charles S. Bacon, Illinois, in the temporary absence of the Chairman, Dr. Charles A. L. Reed, as follows:

To the Members of the House of Delegates of the American Medical Association:

Your Committee on Medical Legislation begs leave, herewith, to submit its annual report, and, as a part of the same, the accompanying *Bulletin* comprising the record of the "Annual Conference of the Committee on Medical Legislation and the National Legislative Council," held at Washington, D. C., Jan. 18, 19 and 20, 1909.

An examination of this *Bulletin* will show that your committee has had under consideration during the past year (a) the Navy Medical Reorganization Bill; (b) bills relating to the Public Health and Marine-Hospital Service; (c) measures relating to the Federal and State Regulation of the Public Health; (d) relief measures for the surviving families of persons who have died in the medical service of the country; (e) the uniform regulation of the practice of medicine by the different states; (f) uniform regulation of vital statistics by the states; (g) uniform state laws on foods and drugs; (h) the attitude of the last administration in appointing a commission for the purpose of reviewing and thus overriding certain findings of the governmental agencies lawfully established for the interpretation and enforcement of the National Pure Food and Drugs Act, and (i) the general question of expert medical testimony.

Although these several questions are considered at length, and although the conclusions reached by the Conference are fully set forth in the *Bulletin* submitted herewith, it seems important that further, but brief, allusion should be made to certain of the subjects therein mentioned, and particularly, that certain information that naturally does not occur in the formal record should be placed before the House of Delegates.

THE HEARING OF THE PUBLIC HEALTH BILL

On January 19, your committee, accompanied by the attending members of the National Legislative Council, appeared before the subcommittee of the House Committee on Interstate and Foreign Commerce, and were accorded a full hearing on the pending measure to protect the public health and to impose additional duties on the Public Health and Marine-Hospital Service. This bill, known as Senate Bill 6102, had passed the Senate, had been reported out of committee in the House and was then on the open calendar. It had been agreed, however, between the Surgeon-General of the Public Health and Marine-Hospital Service and the representatives of the Committee of One Hundred, that an amendment to the bill should be offered either on the floor or by having the bill referred back to the committee, which amendment should embody a provision for the transfer of certain existing bureaus and services with the object more especially of creating a new national public health bureau.

A NATIONAL BUREAU OF PUBLIC HEALTH

The amendment was based on the recommendations contained in the message of President Roosevelt and had been drawn in conference with him and the representatives of the Committee of One Hundred. It consisted, in effect, of a provision authorizing the President at his discretion and by executive order, to transfer any existing bureau or service from any department in which it now exists to any other department of the government and similarly to reassemble and reorganize the bureaus thus transferred. The Conference endorsed the amendment to the extent of approving the proposition to transfer and reassemble "into a single department the various existing national public health agencies." The Conference further proposed an amendment to the bill to invest the Public Health and Marine-Hospital Service with power to regulate the sanitation of interstate streams. It was these two amendments that the subcommittee, through the intervention of Hon. A. J. Barchfeld, M.D., member of Congress from the thirty-first Pennsylvania District, consented to hear in anticipation of their actual presentation. Your committee urged the importance of the effect aimed at by both propositions. The fact that the bureau of health amendment contemplated the creation of such a bureau by means at variance with the previously expressed policy of the American Medical Association, was waived in view of the fact that the amendment in question had been based on the message of President Roosevelt; that it had been submitted by the representatives of the Committee of One Hundred only after consultation with him, and in view of the additional fact that the American Medical Association stood precommitted to cooperate with the Committee of One Hundred on any proposal that it might bring forward relative to this particular question.

It became apparent, however, in the course of this hearing and other interviews (1) that there was some sentiment in Congress favorable to the creation of a Department of Public Health with representation in the cabinet, and that looked on this measure as obstructive; (2) that the proposed amendment was looked on as being so framed that the present organization of any and all departments could be changed at the discretion of the President, and that changes outside of the health services were believed to be the real object of the measure which, in this particular, was looked on as being disingenuous; (3) that there was a decided objection, pointedly expressed by the members of both branches of the Congress, that the proposition contemplated the surrender by the Congress of a constitutional prerogative, and was an additional instance of the attempted encroachment of the executive on the legislative branch of the government; and (4) that the creation of a governmental bureau by executive order was without precedent, and that such a precedent ought not to be established. In view of these considerations it is not surprising that the measure did not come up for passage, and consequently that no occasion arose by which the amendment could be offered from the floor. Your committee is now authorized to state that its effort to secure the establishment of a more highly organized national public health service by practicable and constitutional legislation will receive the cordial support of President Taft.

THE PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE

The bill to which allusion has just been made and another bill (Senate 6101), known as the "Personnel Bill," naturally died with the Congress before which they were pending. They are both meritorious measures, and with some slight amendments of the original bills ought to be enacted into law. At the time of the preparation of this report they had not been resubmitted to the Congress, as your committee is advised by the Surgeon-General of the Public Health and Marine-Hospital Service that the Secretary of the Treasury under

the present administration has had as yet no opportunity to go over the measures. The present organization of our government makes it impossible for any move to be made by the administration in public health matters until they shall have been considered and passed on by the layman who happens to be at the head of the Treasury Department. This fact makes it very pertinent to enquire whether or not there would be a practical advantage in having, if not a physician, at least some man with a technical knowledge of public health problems, as the particular Assistant Secretary of the Treasury to whom the Surgeon-General of the Public Health and Marine-Hospital Service reports, and who, in the nature of things, must be the adviser of our National Officer of Health, otherwise known as the Secretary of the Treasury.

THE NAVAL MEDICAL REORGANIZATION BILL

Senate bill S. 1017 and House bill H. R. 6184, "To Reorganize and Increase the Efficiency of the Hospital Corps of the United States Navy and Regulate Its Pay," has been repeatedly introduced, and passed the House last session: it is now before both the House and Senate, and should pass the regular session of this Congress on its merits. This bill provides for the reorganization of the Hospital Corps, together with the creation of the grade of chief pharmacist. The creation of this additional grade represents the only additional expense. Pharmacists now represent the only warrant officers to whom the benefits of this advanced grade are not extended, the naval appropriation bill, approved March 3, 1909, having provided for the promotion of machinists to chief machinists. It is with a view to correct this unfair discrimination that the present bill has been introduced.

THE NAVAL DENTAL SERVICE

Senate Bill S. 1015 and House Bill H. R. 6741, "Authorizing the Appointment of Dental Surgeons in the Navy," deserves a special word of consideration.

For many years the Navy Department has consistently recommended legislation providing for the services of dentists in the Navy. The arguments in favor of authorizing the employment of skilled dentists in the Navy may be found clearly and exhaustively set forth in the various annual reports of this Bureau and also may be found ably epitomized and compiled in Report No. 1227, accompanying the dental bill when, on March 13, 1908, it was committed to the Committee of the Whole House. Bills looking to the appointment of dental surgeons, which have the approval of this Bureau, have been introduced both in the Senate and House at the present session of Congress and have taken their place on the calendars and will, it is hoped, duly come up for consideration at the regular session.

Dental surgeons are needed in the Navy quite as much as, if not more than, in the Army, which service enjoys free treatment by dentists employed in accordance with law, and it seems an unjust discrimination against the enlisted men of the Navy not to provide for similar dental work, especially in view of the universally recognized economic importance of sound teeth in military service.

A MEDICAL RESERVE CORPS FOR THE UNITED STATES NAVY

The Navy Department, during the last session of Congress, approved the insertion of a clause in the Navy appropriation act for that year under "Pay of the Navy," providing for the establishment of a reserve corps for the medical department of the Navy, and recommended the insertion of this clause to Congress, but it failed of favorable consideration.

The clause as recommended is based on the act approved April 23, 1908, which established a Medical Reserve Corps for the Army, and by this clause the Bureau seeks exactly similar provisions for the Navy.

A Medical Reserve Corps in the Navy is urgently required to place the medical department on a sound footing in respect to medical assistance available should any occasion arise for emergency expansion.

If this measure is enacted and the desired corps is established.

1. The Medical Department of the Navy will be placed in close contact with the members of the medical profession throughout the country, and will be in a position to call them into consultation and enjoy the advantage of their advice should the occasion require.

2. It would secure for the medical department adequate and efficient assistance, no matter what or how great the emergency demand.

3. It would make the services (Army and Navy) equally attractive. This equality does not exist under the present policy of requiring all candidates for the Navy Medical Corps to pass through a probationary period as acting assistant surgeons under instruction at the Naval Medical School before being eligible for commissions in the regular service.

The proposed amendment is as follows:

Provided, That a medical reserve corps, to be a constituent part of the medical department of the Navy, is hereby established under the same provisions, in all respects (except as may be necessary to adapt the said provisions to the Navy), as those providing a medical reserve corps for the Army and as set forth in the act to increase the efficiency of the medical department of the United States Army, approved April 23, 1908.

HOSPITAL SHIPS FOR THE NAVY

As permanent adjuncts of the Atlantic and Pacific fleets, such ships have become a necessity and their value, both from economic and humane considerations, has been fully demonstrated by the experience of the hospital ship *Relief*, which was recently with the Atlantic fleet on its cruise. This ship, although a makeshift and scarcely seaworthy, on many occasions during the cruise saved to the fleet the services of men-of-war, which, in former times, were required to be diverted on the occurrence of infectious disease, etc., from their legitimate functions to serve as carriers for the sick or injured.

The Bureau has urged the Department to make provisions in the estimates presented to Congress for two hospital ships based on plans already prepared under the Department's direction, the cost of each not to exceed $1,500,000.

The unseaworthiness of the hospital ship *Relief* has required that she be retained in Philippine waters, and her services are, therefore, restricted and not available for service with the fleet.

The Department has authorized the refitting of the U. S. S. *Solace* as a hospital ship, and this work is now approaching completion. It must be understood, however, that ships of this nature represent only makeshifts and are not of a type suitable for this purpose.

The amendment as proposed is as follows:

Increase of the Navy; Hospital Ships. The Secretary of the Navy, in his discretion, is hereby authorized to purchase and fit two ships of American registry, having a gross tonnage of not less than eight thousand tons each, to be used as hospital ships;

Provided, That the cost of the two ships shall not exceed three million dollars;

And provided further, That one or both of said ships, in the discretion of the Secretary of the Navy, may be built by contract.

ISTHMIAN SANITATION

The sanitation of the Canal Zone is being maintained at such a high standard, the results achieved are so thoroughly satisfactory, and the status given to the sanitary department under the present administration is so high and influential that no additional legislation relating thereto has been required from Congress.

The fact that the chief sanitary officer is now a member of the commission, and that he now has coordinate rather than subordinate powers, is largely responsible for the fact that the work of constructing the canal with a minimum loss of human efficiency from disease and death, is progressing with a rapidity never before known in the history of such enterprises.

It is, furthermore, a source of satisfaction to report, on authority, that President Taft is already giving careful attention to the future sanitation of the Isthmian Lake, now in course of construction. This body of water will be several hundred square miles in extent and would be an ideal breeding place for the anopheles mosquitoes, the unrestricted multiplication of which would be a serious menace to the health of the Isthmus.

Any apprehension that may arise from these circumstances may be allayed in view of the fact that the problem, which is still several years away, is already in process of solution by President Taft, in cooperation with the distinguished gentleman who presides over our deliberations to-day, Col. William C. Gorgas.

WORK IN THE STATES

During the past winter the legislature has been in session in forty states as follows: Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Mexico, New York, Nevada, New Jersey, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Vermont, Utah, Washington, West Virginia, Wisconsin and Wyoming. In

each of these states the member of the Council on Medical Legislation was asked to designate a member living at the capital city to act as capital correspondent and to keep the Bureau informed regarding the progress of legislation in the state. The only measure actively taken up by the committee was the bill regulating the registration of vital statistics, which was endorsed by the House of Delegates at the Chicago Session, and which, after discussion of its provisions by the Section on Hygiene and Sanitary Science as well as the American Public Health Association, was further amended and a final draft printed, a copy of which is attached herewith. At the request of the Bureau of the Census, special efforts were made to secure the passage of this bill in Illinois and Missouri. Owing to unfortunate and unavoidable political conditions, the passage of the bill in Illinois was impossible. We are glad to report, however, that owing to the energetic efforts of the Committee on Medical Legislation of the Missouri State Medical Association, the model bill was passed by both houses of the legislature and became a law. In addition to this, the bill in a modified form was adopted by the Arizona legislature and the Delaware vital statistics law was so modified as to admit that state to the registration area. It is the intention of your committee to continue its efforts along this line in selected states each year, until the model bill has been adopted in all of the states.

In addition to the special efforts made in Missouri and Illinois, the model bill on vital statistics was also distributed widely in the various non-registration states, not with any expectation of securing its passage this year, but in the hope of laying the foundation for future activity. It was introduced in Tennessee and Kansas, but was not passed. It will undoubtedly be presented in these states at the next session of the legislature. This matter is now in definite form, and it is only necessary to continue systematic efforts to solve this problem permanently.

OTHER STATE LEGISLATION

In addition to the special work done along the line of vital statistics legislation, your committee has endeavored to cooperate, wherever possible, with the committees of the various state associations for the furtherance of desirable legislation and for the defeat of vicious and undesirable bills. As a motion was unanimously adopted at the Washington Conference in December not to take part in any state campaign unless specifically requested to do so by the committee on legislation of the state association, your committee has restricted its efforts to those cases in which it was specifically asked to assist the state committees in their work. As usual, the principal battles have been waged around the question of medical licensure and the recognition of the right to practice. Perhaps the most important effort at constructive legislation was that undertaken in Pennsylvania, in which the so-called Herbst-Shreve bill, introduced into both houses on the endorsement of the state committee on legislation, aroused marked interest not only in the profession, but in the public mind and daily press as well. Owing to the number of amendments introduced and attached to the bill in its progress through the legislature, it finally became unsatisfactory to its friends and was withdrawn, leaving Pennsylvania with the cumbersome and ineffective medical practice act of previous years. Efforts will probably be made at the next session of the legislature to secure the passage of a satisfactory practice act.

Efforts have been made in a number of states to secure the enactment of osteopathic and optometry laws, as well as a class of bills recognizing various "schools" previously unheard of. A brief summary of the legislation in the various states follows:

ARIZONA

Model vital statistics act passed, with amendments. Arizona Medical Association made an effort to secure the passage of a bill providing for a bacteriologic and chemical laboratory in connection with the University of Arizona.

ARKANSAS

Bill creating a separate board of examiners for physiomedics defeated in the senate.

CALIFORNIA

Bill establishing a board of examiners for "naturopaths" defeated.

COLORADO

Bill establishing a state board of osteopathy defeated, also bill amending the Colorado medical practice act. Bill establishing state board of osteopathic examiners defeated by the introduction of a bill placing the examination and licensing of opticians in the hands of the state board of medical examiners. Bill providing for the licensing of all hospitals, dispensaries and institutions for the treatment of sick by the state board of health became a law.

CONNECTICUT

Antivaccination bills were defeated. It is hoped that an optometry bill will also fail to pass.

DELAWARE

Amendments to the existing vital statistics act were passed, bringing Delaware into the registration area.

FLORIDA

Bill providing for a state board of osteopathic examiners introduced. No word yet received regarding the outcome of this bill.

ILLINOIS

The usual osteopathic and optometry bills which have been introduced throughout the last four sessions of the legislature appeared again and were defeated. A most excellent bill reorganizing the state charitable, eleemosynary and corrective institutions and placing them all in the hands of a state board of administration, was introduced, but failed to become a law. A bill authorizing municipalities to establish and maintain public tuberculosis sanitaria became a law. The vital statistics bill failed to pass.

INDIANA

The following legislation was enacted: 1. Anti-stream pollution act to prevent the introduction of impurities into the public streams of the state and conferring on the state board of health certain powers to enforce its provisions for the protection of the public health. 2. Housing bill, regulating the construction and maintenance of tenements, lodging and apartment houses. This applies only to Indianapolis and Evansville. 3. Amendment to the state health law, defining the powers and duties of the state board of health, etc., and giving all boards of health "power to do what is reasonable and necessary for the prevention and suppression of disease and the protection of the public health." 4. Act regulating bakeries, canneries, packing houses, slaughter houses and all establishments in which food of any kind is stored or produced, also regulating the method of preparation of food products, etc. 5. A law regulating the management of county jails and providing for their sanitary conduct. 6. An act requiring steam railroads to equip trains with medical supplies. 7. An act authorizing the trustees of the Indiana State University to conduct a medical school. 8. An act protecting natural, mineral and medicinal springs of the state and preventing waste, pollution, etc. 9. An act appropriating $135,000 for a state tuberculosis hospital. 10. An act providing for medical inspection of school children. 11. An act providing for the establishment of a hospital for insane criminals. The usual appropriation bills were also passed with an increase of the amount appropriated for the use of the state board of health. Public health matters in Indiana are in a most excellent condition and the cooperation existing between the state board of health, the state medical association and the various committees on medical legislation is intimate and satisfactory.

IOWA

The optometry bill was defeated in the lower house. The most satisfactory bill passed by the state legislature was the county hospital bill providing for the establishment and maintenance of county hospitals in any county in the state. A bill of special significance was one providing for the consolidation of all the boards of the state, including pharmacy, health, food and drug, medicine, chemistry, veterinary surgery, etc., into a single board to have entire charge of all health matters. This bill, while it did not become a law, is of special interest as representing the inevitable reaction from the multiple boards that have markedly increased in the past years.

KANSAS

Probably the most important legislation was the appropriation of $10,000 a year for two years for the use of the state board of health in inaugurating a state wide educational campaign for the suppression and prevention of tuberculosis. Other laws looking toward the suppression of tuberculosis were also enacted. The food and drugs act was amended and various sanitary laws adopted. The vital statistics bill failed to pass on account of the appropriation feature. It will doubtless be reintroduced and passed at a later session.

MASSACHUSETTS

Of two bills in opposition to vivisection, one was killed and another is pigeonholed and doubtless is dead. The optometry bill was killed. The osteopathic bill was defeated in the Committee on Public Health, but has been amended several times and has gone through both houses. It has not yet reached the governor. The bill consolidating the boards of registration in medicine, dentistry and veterinary medicine was defeated. Several other bills of less notoriety were defeated, for instance, two bills looking to the prevention of dispensing medicine by the physician! Two bills relating to the registration of nurses are still under consideration.

MICHIGAN

Bills were enacted providing for an optometry board as well as for a board of examination for trained nurses, consisting of the secretary of the state board of health, one member of the state board of registration in medicine and three nurses to be appointed by the governor. A tuberculosis bill requiring all physicians to report cases of tuberculosis within twenty-four hours and also providing for the disinfection of all premises in which tuberculosis patients have died also became a law.

MINNESOTA

The most important bill enacted was one prohibiting advertising in any form containing suggestive or immoral terms. This bill was bitterly fought by the interests affected, but was finally adopted. A bill regulating the sanitary condition of workshops and factories was also passed. A bill providing a board of examiners for "naturopaths" was defeated.

MISSOURI

In addition to passing the model vital statistics bill admitting Missouri into the registration area, the medical practice act was also amended, increasing the power of the state board, giving it the right to subpœna witnesses and compel attendance and also giving it jurisdiction over physicians licensed under and previous to the act.

NEBRASKA

A law was enacted providing for the care of indigent consumptives and providing that persons declared by the courts to be invalids should be entitled to public care. A bill creating a board of osteopathic examiners, as well as one providing for the registration of trained nurses under the supervision of the state board of health, became laws.

NEW JERSEY

An amendment to the medical practice act was adopted giving the osteopaths one member on the state medical examining board and legal status as practitioners.

NEW YORK

The antivivisection bills were killed in the committee on judiciary. The bill regulating medical expert testimony was not adopted.

NORTH CAROLINA

An optometry bill similar to those introduced in other states became a law.

NORTH DAKOTA

An osteopathy bill, creating a separate board of osteopathic examiners, became a law.

OHIO

The optometry bill was defeated. Other legislation was not undertaken on account of the session of the legislature being a special one.

PENNSYLVANIA

The antivivisection bill failed to pass. An osteopathic bill, creating a board of five members, passed both houses and was signed by the governor. A milk adulteration bill, as well as a bill establishing a board of examiners for trained nurses, was enacted. A food bill known as the Todd-Murphy bill, permitting the use of benzoate of soda and sulphur dioxid as preservatives, was also passed. The Herbst-Shreve bill, providing a new medical practice act, was withdrawn.

RHODE ISLAND

A bill providing for a board of optometry examiners became a law.

TENNESSEE

Bills comprising a new medical practice act, as well as the model vital statistics bill, have been introduced into the legislature. No final action has as yet been reported.

VERMONT

The optometry bill was adopted; also a bill amending the medical practice act, various sanitary measures, such as acts providing for the free distribution of antitoxin, amending the pure food and drug law and prohibiting the pollution of public waters, etc.

WISCONSIN

An antivivisection bill referred to the committee on public health was indefinitely postponed.

WYOMING

Efforts were made to amend the medical practice act, but were not successful.

WORK OF THE BUREAU

In addition to cooperating with the various state committees and assisting so far as possible in the legislative campaign in the various states, as outlined above, the Bureau has endeavored to carry on constructive work in the direction of uniform state legislation. The work done on a model bill for vital statistics was outlined in the report of last year. We now have a model bill suitable for enactment by any state (with slight modifications and changes), and endorsed by all the health bodies interested in this work. The continued efforts of the committee and of the Bureau will be directed in the future to securing the adoption of this bill in all non-registration states.

Similar efforts have been made in the direction of uniform food and drug legislation. In August of 1908 the secretary entered into correspondence with Mr. R. M. Allen of the Department of Justice, Washington, D. C., secretary of the Association of National and State Food and Dairy Departments, with a view to securing cooperation between his organization and the American Medical Association along this line. At the annual Conference on Medical Legislation, held at Washington in January of 1909, Mr. Allen and Dr. Bigelow, of the Department of Agriculture, addressed the Conference, submitting a model bill which had been drawn up by the Committee on Uniform State Legislation appointed by the Association of National and State Food and Dairy Departments. This bill, containing an elaborate system of standards and definitions necessary for successful pure food legislation, was endorsed by the Conference and has been printed by the Bureau and distributed widely. A copy is submitted herewith. The secretary is now endeavoring to secure cooperation with the National Wholesale Grocers' Association as well as with the state and national pharmaceutical associations. A section on drugs will later on be drafted and added to the bill and the endorsement of all organizations interested in pure food and drug legislation secured. We will then be in a position to advocate the adoption of uniform legislation on this important subject. The proposed bill was drafted by Mr. R. M. Allen, assistant to the attorney-general of the United States, who also drafted the Kentucky pure food law. He is probably one of the best authorities on the legal aspects of food and drug legislation in the country and is earnestly cooperating with the committee in the furtherance of its work.

The most difficult and intricate question now before the committee is that of the preparation of a uniform bill for the regulation of the practice of medicine. It is impossible to go into this question at length within the limits of this report. The secretary has been endeavoring so far as time permitted during the last two years, to accumulate material for the careful study of this most important question. In the *Bulletin* for Nov. 15, 1907, appeared a synopsis of the existing medical practice acts of the various states, and in the report of the secretary, made at the Washington conference, a synopsis of the history of medical legislation in the United States. The secretary now has on hand a large amount of material, consisting of a complete file of existing medical practice acts, together with many previous acts, a considerable amount of historical matter throwing light on the subject as well as a large number of supreme court decisions in the various states bearing on the question of medical licensure, the power of the state, the powers and duties of examining boards, the definition of the practice of medicine and many other points of vital importance in considering this question. All of this matter, it is hoped, can be published in the *Bulletin* early in the fall. The time now seems ripe for a general discussion and careful consideration of the entire subject of state legislation regulating the practice of medicine. Your committee therefore recommends that it be authorized to call a general conference, to take the place of its annual Conference on Medical Legislation and to be devoted to a discussion of the essentials of a uniform medical practice act for adoption by the various states. To such a conference should be invited all members

of the National Council, all members and especially presidents and secretaries of state examining boards, all members of state committees on medical legislation, representatives of various colleges, etc., and particularly representatives of the sectarian schools of medicine as well as prominent jurists, sociologists and economists. The regulation of the practice of medicine has too long been considered a question which concerned the medical profession alone and which each state must solve alone and unaided. We should not only accept but should earnestly seek for all the assistance which can be secured from those who can enlighten us along legal, sociologic and economic lines.

We should also endeavor to secure uniformity in essentials, so that the present chaotic, shifting and uncertain situation may be remedied.

The committee, and especially the secretary, desire to acknowledge the great assistance afforded by the officers of the various state and county societies, chairmen and members of the committees on medical legislation and the members of the association who have assisted us in securing desired information along legislative lines. Through the continued assistance of all physicians interested in medical legislation we hope to make the Bureau and committee of much greater service during the coming year than it has been in the past.

The work of the Bureau has been under the supervision of Dr. Frederick R. Green, whose services can not be too highly appreciated.

Respectfully submitted,

CHARLES A. L. REED, Chairman.
CHARLES S. BACON.
GEORGE W. GAY.

FREDERICK R. GREEN, Secretary.

The report was referred to the Reference Committee on Legislation and Political Action.

Report of the Council on Medical Education, For the Year Ending June 1, 1909

The report of the Committee on Medical Education was presented by the chairman, Dr. Arthur Dean Bevan, Illinois, as follows:

To the Members of the House of Delegates of the American Medical Association:

For five years the Council on Medical Education has been working for higher and more uniform standards of medical education. In this time many changes for the better have been brought about. Such influence as the Council may have had toward these improvements has been due largely to the following facts:

1. The Council is the committee on education of the medical profession of America, represented by the American Medical Association. As such, its interests are national and its object is the betterment of medical education in all sections of the country.

2. It is a permanent committee, thereby exerting a constant, steady influence for improvement, not possible through temporary committees, however excellent their work might be.

3. Its headquarters at the home of the medical profession of America and its connection with the *Journal of the American Medical Association*, with its extensive body of correspondents, made it possible to obtain much information which otherwise could not have been secured.

4. An abundance of information has been collected, tabulated and published regarding medical colleges, standards, students, graduates, facilities and equipment, as well as much information regarding the requirements for license to practice medicine both in this country and abroad. Information has also been collected regarding elementary, secondary and collegiate education.

5. This information, formerly not available, has thrown much light on medical education, revealing quite clearly problems which otherwise could not have been seen.

6. As problems have arisen they have been presented at annual conferences on medical education for discussion. These annual conferences have been held under the auspices of the Council on Medical Education and to them are invited as delegates those who are interested and whose advice and influence may be helpful in elevating the standards of medical education; from the state licensing boards, state medical societies, confederation of examining boards, college associations and the United States services, as well as from colleges of liberal arts and other interested organizations. They have been attended by an increasing number of delegates each year. They are entirely informal and are devoted to the discussion of the more urgent problems of medical education, the reports of which have been given wide circulation in the columns of the *Journal of the American Medical Association* and by reprints. These conferences have undoubtedly been a strong influence favoring higher and more uniform standards.

It might be well to briefly review the work of the five annual conferences. The first conference was held in Chicago, April 20, 1905. At this conference the questions of preliminary education, medical curriculum and the relation of the college of liberal arts to the medical school were discussed, as a result of which the Council formulated the following as the minimum standard of the American Medical Association:

MINIMUM STANDARD

(a) A preliminary education sufficient to enable the student to enter the freshman class of our recognized universities, (b) the passing on the credentials of such an education by a state official, (c) the graduation from an approved medical college requiring a four years' course of not less than 30 weeks each year with 30 hours each week, of actual work, (d) the passing of an examination for licensure before a state board.

IDEAL STANDARD

The Council further formulated a so-called ideal standard which should be secured as rapidly as the conditions throughout the country warranted. This ideal standard was briefly as follows:

(a) A four year high school education, (b) a year's university training in physics, chemistry and biology, (c) four years of medicine proper, and (d) one year as interne in a hospital or dispensary.

THE SECOND CONFERENCE

At the second conference, held in Chicago, May 12, 1906, probably the most important facts presented were the standings of the various medical colleges based on the failures of their graduates in examinations before state boards. The colleges were divided into three groups: those having less than 10 per cent. of failures; those having from 10 to 20 per cent., and those having above 20 per cent. A fourth unclassified list was made of those colleges which had insufficient data to permit of comparison. These reports, which are published annually in the State Board statistics prepared by the Council, have been productive of much good in stimulating faculties to guard against the graduation of illy prepared students.

THE THIRD CONFERENCE

At the third conference, held in Chicago, April 29, 1907, a detailed report of a personal inspection made by members of the Council of all the medical schools of the United States was presented. In this inspection the schools were marked on a civil service basis consisting of ten points covering the essentials of a modern medical college, these 10 points making a possible 100. And on this basis the colleges as graded were divided into three groups. The result was as follows: An acceptable group of 82 colleges with marks from 70 to 100, a conditioned group of 46 colleges with marks from 50 to 70, and a rejected group of 32 colleges with marks below 50.

This personal inspection of colleges has been continued and a second inspection will soon be completed.

THE FOURTH CONFERENCE

The fourth annual conference held in Chicago, April, 1908, was from many standpoints most encouraging and interesting. The secretary presented a graphic study of medical education in the various states of the union and in the twenty most important countries of the world showing the comparative position of medical education in this country with that of the rest of the world.

It was revealed that while this country had a few medical colleges equal to any in the world, it was nevertheless far behind other nations in standards of both preliminary and medical education. More encouraging was the report of a campaign carried on during the year by the Council to secure the adoption by medical colleges of higher preliminary standards. This report brought out the fact that more than fifty first-class schools in this country had agreed to accept what has been adopted by all the rest of the world, i. e., a five year medical course. This is to be brought about by adding to our present preliminary requirements of a four year high school course, at least one year of physics, chemistry and biology.

This advance requirement has become so general that it will doubtless be adopted by all first-class schools within the next few years and thus place American medical education on a par with that of England, France, Germany, Austria, Canada—in fact, with that of all our neighbors and rivals in progress and civilization.

THE FIFTH CONFERENCE

At the fifth annual conference, held in Chicago, April 5, 1909, the chief feature was the report of a committee on medical curriculum. This committee consisted of one hundred prominent educators representing all the departments and specialties in medicine. It has done a splendid piece of work, which we feel is most important and timely since we are just entering on what we believe will prove to be the greatest reconstructive period in the history of medical education in America. The recommendations of this committee on what constitutes a proper medical course are most interesting and have already attracted much attention.

A 4,100 hour curriculum was agreed to, divided among the various departments as follows:

SUBJECT	HOURS
I. Anatomy, including histology and embryology	700
II. Physiology and Physiologic Chemistry, including 80 hours of Organic Chemistry	530
III. Pathology and Bacteriology	500
IV. Pharmacology, Toxicology and Therapeutics	240
V. Medicine, including Pediatrics and Nervous Diseases	890
VI. Surgery: General and Special	650
VII. Obstetrics and Gynecology	240
VIII. Diseases of the Eye, Ear, Nose and Throat	140
IX. Dermatology and Syphilis	90
X. Hygiene, Medical Economics and Medical Jurisprudence	120
Total	4,100

It was the unanimous opinion of the committee that a hard and fast medical curriculum uniform for all colleges was not desirable and not for the best interests of medical education. It was definitely stated, therefore, that the curriculum recommended by this committee was to be regarded as suggestive and educational only, and was not intended for adoption as an absolute and fixed requirement either by medical colleges or by state boards. The curriculum reported does not represent a minimum requirement but one which is sufficiently comprehensive to meet the present demand of medical education.

A second and no less important subject discussed at this conference was the desirability and value of practical state license examinations as the best means of testing the candidate's ability to practice medicine. Statements were made by state board members present suggesting that in addition to the written examination the candidate be required to do some chemical laboratory work, to examine specimens under the microscope, to describe gross pathological and anatomical specimens, to make demonstrations on the obstetric manikin and on the cadaver or to make application of bandages or surgical dressings. Several states have already introduced such practical examinations and others are contemplating doing so. Although there are some difficulties to be overcome, the advantages of these methods are obvious. As is well known, such tests have long been employed in practically all European countries. The members of the Council are unanimous in endorsing this as one of the most important advances to be made. On the whole, much has been accomplished, which will be briefly outlined in the following report, showing the present status of preliminary and medical education in the United States:

PRELIMINARY EDUCATION

Investigation reveals much confusion in standards not only among medical schools, but also in high schools, colleges and all other departments of education. No previous time, however, has seen so many forces at work in the effort to standardize the different departments and to develop system and uniformity.

High Schools.—Many of the states are seriously lacking in good high schools, which observation applies as much to a number of states north of the Mason and Dixon line as to those south of it. In fact, there are very few states which have all their high schools well organized, well equipped and supplied with well qualified, college-trained teachers. This department of education is now being systematically taken up by various organizations, including the General Education Board, and throughout the southern states a high-school inspector with the title of a "Professor of Secondary Education" has been placed with each state university. Public sentiment throughout the south is rapidly being awakened and already vast sums have been appropriated by legislatures to develop high schools. Leading educators in the south state that within four to five years that section will be fairly well provided with four-year high schools.

Colleges and Universities.—Several educational organizations, including the Associations of Universities and the Carnegie Foundation for the Advancement of Teaching, are now at work in an effort to standardize colleges and universities, many of which, from an educational standpoint, have no right to such titles, since they give courses of little more, or even of less value, than those in some of the better high schools.

PRELIMINARY REQUIREMENTS OF MEDICAL SCHOOLS

Eleven medical colleges already require two or more years of work in a college of liberal arts for admission. These colleges and the years when such requirement began are as lows:

College	Began
Johns Hopkins University Medical Department	1893
Harvard Medical School	1900
Western Reserve University, Medical Department	1901
University of Chicago, Rush Medical College	1904
University of California, Medical Department	1905
University of Minnesota, Coll. of Med. and Surg	1907
University of Minnesota, Homeopathic Department	1907
University of North Dakota, College of Medicine	1907
University of Wisconsin, College of Medicine	1907
Cornell University Medical College	1908
Wake Forest College, School of Medicine	1908

Eighteen other colleges have definitely announced an increase in their entrance requirements to two or more years in a college of liberal arts. These and the dates when such requirements will become effective are as follows:

College	Begins
Leland Stanford Junior University, Department of Medicine	1909
Yale Medical School	1909
*Northwestern University Medical School	1909
University of Kansas, School of Medicine	1909
University of Michigan, College of Medicine	1909
*University of Nebraska, College of Medicine	1909
University of South Dakota, College of Medicine	1909
University of Colorado, School of Medicine	1910
†Indiana University School of Medicine	1910
†State University of Iowa, College of Medicine	1910
Drake University, College of Medicine	1910
‡University of Missouri, Department of Medicine	1910
John A. Creighton Medical College	1910
Dartmouth Medical School	1910
Columbia University, College of Physicians and Surgeons	1910
†Syracuse University, College of Medicine	1910
†University of Pennsylvania, Medical Department	1910
†University of Utah, Medical Department	1910

* One year required for the session of 1908-09.
† Will require one year for the session of 1909-10.
‡ One year has been required since 1906.

The 21 following colleges either already require one year of work in a college of liberal arts in addition to a four-year high school course, or have announced their intention to do so on or before the year given:

College	In Force
Fordham University, School of Medicine	1908
University of North Carolina, Medical Department	1909
Oakland College of Medicine and Surgery	1910
Denver and Gross College of Medicine	1910
College of Physicians and Surgeons, Chicago	1910
Hahnemann Medical College, Chicago	1910
Kansas Medical College	1910
Tulane University of Louisiana, Medical Department	1910
St. Louis University School of Medicine	1910
Washington University, Medical Department	1910
University of Cincinnati, Medical Department	1910
Starling-Ohio Medical College	1910
Cleveland College of Physicians and Surgeons	1910
University of Oklahoma School of Medicine	1910
University of Oregon, Medical Department	1910
Vanderbilt University, Medical Department	1910
University of Texas, Medical Department	1910
*University of Virginia, Department of Medicine	1910
West Virginia University, College of Medicine	1910
Marquette University Medical Department	1910
Wisconsin College of Physicians and Surgeons	1910

* Requires a three year high school course plus one year of college work.

Several other colleges announced to us that higher requirements had been adopted. Two have since rescinded their action, five have merged into other colleges, and others, on inspection, being found unworthy of recognition, were omitted from the lists. The schools above named, however, have made definite statements in their announcements regarding the increase in their entrance requirements and doubtless mean what they say.

In support of these higher standards, the State Examining Boards of six states have established higher requirements of preliminary education. These states and the years when the requirement will become effective are as follows:

State Examining Board of	No. of years Required	Affects students matriculating	Affects all applicants after
Minnesota	2	1908-09	1912
Connecticut	2	1910-11	1914
North Dakota	2	1907-08	1911
South Dakota	1	1907-08	1911
Colorado	1	1908-09	1912
Kansas	1	1910-11	1914

Several other states are contemplating a similar increase in their requirements of preliminary education. In some of these

the increase would doubtless be welcomed since then medical colleges have already adopted the increased requirements

MEDICAL COLLEGE MERGERS

Since our 1st report there have been five important mergers of medical colleges by which nine medical schools are replaced by four stronger ones These mergers were as follows

1 At Louisville, Ky, the Louisville and Hospital Medical College, the Kentucky School of Medicine and the University of Louisville Medical Department united, retaining the name of the University of Louisville Medical Department This leaves but one regular medical college in Louisville, where there were five colleges two years ago As a direct result of this merger, the school has received $25 000 from the city of Louisville and steps have been taken to build a new city hospital, which is to be largely under the control of the medical school

2 At Cincinnati the merger between the Medical College of Ohio and the Miami Medical College has been completed, the new school to be the Medical Department of the University of Cincinnati The building of an enormous new city hospital has already been started near the university campus and a new medical college building will be erected adjoining this hospital The outlook for this new school is very encouraging

3 The Keokuk Medical College, College of Physicians and Surgeons, located at Keokuk Iowa, has turned all its property and good will over to the Drake University, College of Medicine, at Des Moines, Iowa

4 The University of Southern California, College of Medicine, at Los Angeles, has united with the University of California whereby it becomes the Los Angeles Medical Department of the State University The work of the first two years will be at Berkeley, the student being allowed to take his clinical work either at San Francisco or Los Angeles

5 The Cooper Medical College, beginning this fall, will be the Medical Department of Leland Stanford, Jr, University, located at Palo Alto, Cal Three years of work in the liberal arts department will be required for admission The first three semesters of medical work will be given on the University campus at Palo Alto, the last five at San Francisco

QUALITY VERSUS QUANTITY

Five years ago there were 166 medical colleges in the United States Since that time 25 others have been organized, but 43 were closed, leaving 148 at the present time Of those closed, 16 became extinct and the balance merged into others That the medical colleges themselves realize the need of improvement in standards and equipment is best shown by the fact that in five years mergers took place replacing 34 medical colleges by 12, which were invariably larger, stronger and better equipped

There are numerous other cities where mergers might be brought about if those interested in general education and those in medical education in each city would work together to secure them For example, if all the medical colleges of any large city, such as Chicago, Philadelphia, St Louis or others could be merged into one great university medical school, such as are to be found in Berlin, Paris or Vienna, it would be of the greatest possible advantage to medical education in this country

NIGHT TEACHING ABANDONED

Information has been received that the teaching of medicine to students attending only at night or after 4 o'clock p m, has been abandoned by George Washington University and by Howard University, both located at Washington, D C, and by Temple College Medical School at Philadelphia This still leaves four medical night schools, three of which are at Chicago and one at St Louis

GRANTING OF ADVANCED STANDING

It is a rather deplorable practice, even with some of the supposedly better grade medical colleges, to allow advanced standing with little or no restrictions for work done in some of the medical schools known to be extremely low grade, from night schools and even from schools not generally recognized by law as medical schools It is quite encouraging, therefore, to note that an increasing number of colleges are limiting advanced standing to credentials from colleges of known merit

NEEDS AS REVEALED BY THE INVESTIGATION OF MEDICAL COLLEGES

An investigation of medical education in the United States covering a period of five years and which included one or more personal inspections of each individual medical school, has revealed numerous defects in the teaching of medicine, some of which may be briefly stated as follows.

1 There are too many medical colleges in this country As shown in our report last year, the United States has nearly as many colleges as the rest of the civilized world combined The majority of them depend on the fees of students to pay their running expenses

2 This has led to an active competition for students and to a disregard of preliminary requirements which has not only prevented the medical school from obtaining well trained students, but has also hindered the development of high schools, since students were and are still being admitted with only a grammar school education

3 The methods of teaching medicine of 15 or 20 years ago are still being followed by a number of our colleges, and the students in many of the schools are not required to have a preliminary training the equivalent of a four year high school education

4 The medicine of to day, however, really demands of the student a more extensive and thorough preliminary training than is possible in the vast majority of our secondary schools Experience has shown that this additional preliminary training for medicine should consist of at least one year's work in physics chemistry and biology, and that a reading knowledge of German and French should also be required

5 The teaching of medicine to day demands trained teachers. For the fundamental medical sciences there should be instructors who have had special, thorough training in anatomy, histology and embryology, physiology, physiologic chemistry, pharmacology, pathology and bacteriology, and these men should be paid salaries sufficient to permit them to devote their entire time to teaching and research, unhampered by the necessity of keeping up an active practice for a livelihood

6 In order to properly teach medicine, medical colleges must have hospitals either owned by them or entirely under their control so far as the clinical material is concerned This is now one of the greatest needs of medical teaching Our medical students must come into closer contact with patients in hospital wards and dispensaries, where they should be given a systematic, careful training in writing histories and in the methods of the clinical laboratory

7 If the medical college is of high standard hospital patients would be benefited by the presence of students The attending physician will be more careful in his examinations and treatment if he is teaching medical students The trustees of hospitals should have pointed out to them the importance of the educational function of the hospital and the value of a medical school connection

8 Medical education is but one of the departments of our general system of education, and should be brought into harmony with all other departments The interests of all departments of education are mutual What helps one should help all Medical schools must depend on the high schools, colleges and universities to furnish the preliminary training for medical students The medical school might also obtain many valuable suggestions from the liberal arts colleges in regard to supervision, standards of equipment and methods of teaching On the other hand, if the medical college insists on high standards of preliminary education, it will aid and stimulate the work of the secondary schools, colleges and universities

9 Owing to the confusion in the standards of secondary schools, it requires expert knowledge to place the proper value on preliminary credentials and to judge of a student's qualifications, which information is not at present available for medical schools The provision for certificates from county superintendents or high school principals has proved to be very unsatisfactory A number of eastern colleges and universities have solved the problem by requiring that their examinations be held by the College Entrance Examining Board It might be possible to have preliminary credentials of medical students pass through the hands of that board.

10 There are a number of medical schools known as medical departments of universities which in point of fact have only nominal connection with such universities In a few instances, there is no real university of the name given, or else the university is made up of schools of medicine, law, dentistry and pharmacy without a liberal arts department The majority of these are really independent medical schools, the university so called having no control over the standards of teaching, nor furnishing any financial assistance to its "medical department"

11 A medical school would be greatly benefited by becoming the organic medical department of a university which has a strong liberal arts department By organic" is meant where the medical school and its finances are controlled by the university trustees and where the educational standards are fixed by the liberal arts department By such connections,

e within recent years, it has been most interesting to watch the transformation of what might better be termed "medical institutions" into, what are in every sense of the term, "medical colleges."

12. Those medical schools which are honestly striving to teach medicine and which have the right ideals should receive endowment. It has been clearly demonstrated time and again that no medical school can demand the necessary entrance requirements, provide the expert all-time salaried instructors, install the thoroughly equipped laboratories and properly supervise the dispensary and hospital teaching without private endowment or state aid. Additional figures have been received during the past year showing that the cost of teaching a student in each of the freshman and sophomore years in the 25 or 30 leading medical schools ranges from $250 to $700 or more per year, while the tuition received from each student ranges only from $65 to $250 per year. To meet the necessary expenses of properly teaching medicine from students' fees is therefore clearly out of the question.

13. After all that has been said in the last four or five years regarding the needs of modern medicine in money, salaried instructors, laboratories and hospitals, there are still a considerable number of colleges which, from students' fees, are able to pay all expenses and still have a snug little sum at the end of the year to "divide up" among the members of the faculty. And strange as it may seem, it is from these very colleges that we oftenest hear the plea for "the poor boy who wants to get an education" as an excuse for low preliminary requirements, and the question as to "who will practice at the country cross-roads and the back-woods districts" if a thorough medical training is insisted on.

14. There are several medical schools so called which are little else than quiz classes and which are run only to prepare their students to pass state license examinations. Inspection shows they seriously lack equipment or make little use of what they have. Statistics show that "graduates" of these schools are able to pass state license examinations, as they are now generally conducted. This is an argument for the practical state license examination.

STATE LICENSE LEGISLATION AND REQUIREMENTS

Since a year ago several important changes have been made in medical practice acts or in board rulings governing the requirements for license to practice medicine.

PRACTICAL EXAMINATIONS

1. Two state boards, those of Massachusetts and Ohio, included practical tests in the examination of applicants for license. These tests included the making of urinalyses and the identification under the microscope of histologic, pathologic and bacterial specimens. Two other boards, those of Indiana and Minnesota, have announced that practical tests will hereafter be required.

2. In three states, Alabama, Arkansas and Rhode Island, amendments to the practice acts have been secured requiring that all applicants for license be graduates of reputable medical colleges. This leaves only three states, Massachusetts, Mississippi and Tennessee, which still allow non-graduates to secure licenses other than through reciprocity.

3. Indiana, Iowa and Nebraska have provided for examinations in two parts whereby the fundamental medical branches may be passed off at the end of the sophomore year, this credit to be accepted toward the examination for license after the student has graduated. There are now eight states having this two-part examination, as follows:

Colorado,	Maryland,	New York,
Indiana,	Michigan,	Virginia.
Iowa,	Nebraska.	

4. In only one instance during the past four years has a state retrograded in its standards for medical licensure. This occurred during the last year in Oklahoma. A bill for a strong practice act was introduced, but was so sadly riddled by the time it came through the Oklahoma legislature that it provides lower standards than were formerly enforced in the territory of Oklahoma.

5. In four states during the past year recognition was withdrawn from a number of medical colleges. In Indiana from one college which has been closed, in Illinois from five, to all of which recognition has since been restored, in Missouri from two, to one of which recognition has been restored, and in Texas from two, both of which have been closed. In several other states, while recognition was not withdrawn from colleges, considerable pressure has been exerted by the boards resulting in marked changes for the better.

PROGRESS TOWARD UNIFORMITY IN FIVE YEARS

In the past five years the many changes in practice acts show that the requirements to practice medicine in the various states are approaching uniformity by the process of evolution. These changes are as follows

1. Then only 20 state practice acts made provision for preliminary education; now 36 have such provision. Then no states provided for collegiate education; now six require one or two years of college work as the minimum preliminary requirement. Then only 10 had a 4-year high school requirement; now 22 have that requirement.

2. Then 43 states required an examination of all applicants for license; now all but one state have that requirement. New Mexico still registers graduates from certain medical colleges without the written examination.

3. Then 38 states required that all applicants must be graduates of reputable medical colleges; now all but three have that requirement.

4. Then only about 14 states had full authority to refuse recognition to colleges of low grade; now 29 state boards have full authority and 10 others have limited authority, while only 10 remain without such control.

5. Then all but 13 states had single boards of medical examiners; now only 10 states still have sectarian boards.

6. Then 22 states did not have reciprocal relations with others; now all but 14 states have such reciprocal relations, while two others have legal provision for it.

In the work of bettering medical education in this country, however, there are some other important problems to which attention should be drawn.

CHARTERING OF COLLEGES

In only a few states is there any check on the incorporation or chartering of medical schools. In most states any body of men by paying the required fee can incorporate as a college or university, often with authority to grant any degree under the sun, no question being asked as to the ability to furnish education of the standard generally supplied by the better colleges and universities. And seldom is there any means of control over such institutions, even after they are incorporated.

PSEUDO-MEDICAL COLLEGES

No such unchecked educational institutions are allowed to exist in any other country and, so far as we have been able to learn, in no other country are to be found so many medical sects, or pseudo-medical institutions. There are now some 30 or more nondescript medical fads in a long procession demanding legal recognition, separate boards or representation on examining boards. In some instances the influence has been seriously demoralizing.

SPECIAL LEGISLATION

The chief difficulty in the proper regulation of the practice of medicine in some of the states is the inconsistency of medical legislation. In several instances good, strong medical-practice laws have been enacted providing for fair standards of education but which have been practically annulled by special legislation granting to this or that medical sect special standards, or special boards or representation on examining boards.

THE LOGICAL PROCEDURE

No one should be permitted to practice medicine who is not sufficiently trained to recognize disease, since a proper diagnosis is essential for any treatment regardless of the methods employed. The only logical position to take in the matter is, as has been done in a few states, to fix an educational standard by which all who wish to secure the license to practice medicine must comply. This standard should require a fair amount of preliminary education, which should be at least that of a four-year high school course, and a thorough training of at least four years in a medical school, the first two years of which should be devoted largely to laboratory courses in the fundamental medical sciences, anatomy, physiology, pharmacology, pathology and the like, a knowledge of which is absolutely essential to one who is to differentiate between health and disease. The last two years should be largely spent in the hospital and dispensary, in personal contact with the sick and injured, and should include a thorough training in the clinical laboratory. If this standard is complied with and the examination is passed, then grant a physician's license and let the holder practice as his educated common sense dictates.

RECIPROCITY

Reciprocity, if wisely administered, is a commendable measure and a matter of justice to the old practitioner, who for good reason may be compelled to move to another state. Mis-

understood, however, or poorly administered, it may seriously lower medical standards. It is still quite widely understood, even by some state board members, that if one state has reciprocity with another it means that any doctor licensed by the one state must be accepted by the other, no matter how low the applicant's preliminary training was or from what college he may have graduated. Of course, that idea is entirely wrong, since reciprocity provides that the license from another state may be accepted in lieu only of the written examination. In all other respects the applicant should comply with the standard required by the law of the state in which he is trying to secure license, which standards it is the duty of the licensing board to enforce.

As usually provided in the state practice acts, reciprocity is a discretionary measure, licenses under that measure to be granted only when the board is satisfied that the applicant in every way comes up to the standard fixed by the practice act. It sometimes occurs that an applicant who has failed repeatedly before one board goes elsewhere and passes, then reapplies to the first board for a license through reciprocity. Several boards under such circumstances have very properly refused to issue licenses, and have demanded that such applicants pass their own examinations. Another board, that of Louisiana, has recently published a list of medical colleges which are considered satisfactory, and has barred graduates of all other schools from registration through reciprocity. Such procedure by the boards makes reciprocity in their hands a powerful influence for higher standards.

AGENCIES AT WORK

In the efforts to elevate standards and secure acceptable conditions in medical education many agencies are doing splendid work: The medical colleges themselves, the state examining boards, the associations of medical colleges, the universities and colleges of liberal arts, the confederations of state boards, the medical societies, etc. After all has been said, however, the clear and definite fact remains that the legal power to control and elevate the standards of medical education rests entirely and alone with the state boards. Each organization is doing a work which can not be done by the others. Sometimes the efforts overlap, but should not be allowed to conflict. There is certainly enough work for all, and they are all striving toward the same ideal, namely, the improvement of medical standards in the United States, until they are at least equal to those of our neighbors across the Atlantic.

Respectfully submitted,

COUNCIL ON MEDICAL EDUCATION,
ARTHUR DEAN BEVAN, Chairman,
N. P. COLWELL, Secretary.

The report was referred to the Reference Committee on Medical Education.

The House then adjourned until 2 p. m.

Second Meeting—Monday Afternoon, June 7

The House of Delegates reconvened at 2:30 p. m., and was called to order by the First Vice-President.

DR. H. BERT ELLIS, California, Chairman of the Committee on Credentials, made an additional report for this committee.

The Secretary called the roll.

The minutes of the morning session were read and approved.

Report of the Committee on Ophthalmia Neonatorum

DR. F. PARK LEWIS, New York, Chairman, presented the following report of the Committee on Ophthalmia Neonatorum, which was referred to the Reference Committee on Hygiene and Public Health:

To the Members of the House of Delegates of the American Medical Association:

Your committee beg leave to report herewith the work accomplished to the present date, together with associate committees appointed, legislation proposed and enacted in the several states, measures undertaken on the part of medical and lay organizations, investigations conducted, reports from schools for the blind and the conclusions to which all of this work seems to give warrant.

SUMMARY OF RESOLUTIONS, COMMUNICATIONS, REPORTS AND COMMITTEES

June 1906—At the annual meeting of the American Medical Association the following resolutions were adopted:

WHEREAS, Notwithstanding the long-continued efforts of the medical profession to make generally known the infectious character of ophthalmia neonatorum and its dangers to sight, the ranks of the blind are still largely increased annually by those who have unnecessarily lost their vision as a result of this disease; and

WHEREAS, We possess in the silver salts an almost absolute specific for its prevention and treatment, therefore, be it

Resolved, That this Section recommends that a committee consisting of at least one ophthalmologist, one obstetrician, and one sanitarian, with invited cooperation of a sub-committee, consisting of the president and secretary of each state society, be appointed by the President of the Association to formulate and make effective the details of a plan that may give uniform legislation and definite instruction to the profession and laity concerning the prevention and treatment of this disease.

Resolved, That this Section recommend an ophthalmologist for such committee to be appointed by the incoming Chairman and Executive Committee.

Oct., 1906—President W. J. Mayo appointed F. Park Lewis Chairman of such committee and Clifton Edgar and F. F. Wesbrook members.

Feb., 1907—Circular letter to members American Medical Association, each member of Committee addressing colleagues in his special section. Also sent to physicians abroad. Questions asked in regard to silver nitrate—whether favored by profession—its strength—free distribution—mention of its use on birth certificate—should ophthalmia neonatorum be classed as communicable disease—penalty for failure to report cases—appointment of committees by the president of each state association to work with health board for better laws. 202 answers—9/10 in favor of all questions.

May, 1907—Return postcards sent out by Buffalo Health Department to Buffalo physicians, midwives and hospitals. Number of cases of ophthalmia neonatorum with results during year's practice. 236 doctors replied, total number of cases 96 of which all but 6 made complete recovery. No replies from hospitals.

June, 1907—Report made to American Medical Association in which it was recommended that work of committee be continued and detailed plan of procedure decided upon with advice of chairmen of sections on Ophthalmology, Obstetrics, and Hygiene and Sanitary Science. Recommended cooperation of State and Provincial Boards of Health and American Public Health Association by appointment of committees, and cooperation of State Health Officers and President of each State Society.

Oct., 1907. Paper before American Public Health Association. Resolved that committee of three be appointed. Resolution adopted.

Feb., 1908—Circular letter and model return postcard to the president and secretary of state medical societies and state health officers, recommending appointment of state committees on ophthalmia neonatorum and that health department institute inquiries concerning ophthalmia neonatorum. Replies from 31 medical societies and 12 health departments, also National Government in Panama, Philippine Islands and Hawaii favoring organized movement. Five state committees were appointed.

May-June, 1908—Appointment of committee in each state forming national committee to work with special committee on ophthalmia neonatorum. American Medical Association. Obstetricians appointed by Dr. Dorsett, ophthalmologists by Dr. Wilder and third member from State Boards of Health.

June, 1908—Report of American Medical Association. Conclusions, recommendations. National Congress of Prevention of Blindness urged.

Sept.-Oct., 1908—Circular letter to secretaries of eight District Branches, New York State Medical Society asking them to organize County Societies for this work. Through help of Drs. Bull and Boldt of New York State Committee resolutions were adopted, committees appointed or approval of work obtained in each of the eight districts.

Dec., 1908—Circular letter to each member of National Committee with copy of June, '08 report, asking for state organization by the state committees. 39 replies representing 31 states. Work approved and willingness to cooperate expressed.

March, 1908—Circular letter to members of National Committee and special committees requesting information on progress of ophthalmia neonatorum work in each state in regard to laws, requirements—prophylactics—resolutions—lay movements—number of infected children or statistics—suggestions. 53 replies representing 33 states.

Circular letter to superintendents of state schools for the blind asking for total registration—annual per capita cost—percentage blind from ophthalmia neonatorum, etc. 22 replies.

COMMITTEES

Sub-Committee—ophthalmologist, obstetrician and sanitarian in each state forming national committee with American Medical Association committee as head.

State Medical Societies—California; Colorado; Kentucky; Maine; Missouri; Massachusetts; Ohio—advisory committee for Ohio Commission for the Blind; New York—1st and 8th District Branches, Erie County Medical Society, New York County Medical Society. Other state societies expressed intention of appointing committees later.

Special Medical Societies—American Academy of Ophthalmologists and Oto-Laryngologists; American Public Health Association; American Association of Obstetricians and Gynecologists; American Ophthalmological Association; Conference State and Provincial Boards of Health of North America.

Lay Organizations—American Association Workers for the Blind; New York Association for the Blind, Special Committee on Prevention of Blindness.

RESOLUTIONS AND RECOMMENDATIONS

American Association of Obstetricians and Gynecologists.
American Public Health Association.
American Academy of Ophthalmologists and Oto-Laryngologists.
National Congress of Mothers.
Cincinnati Academy of Medicine—resolutions presented, to be approved.

CIRCULAR LETTERS

1. Members of the American Medical Association and physicians in England, France, Germany and Italy.
2. President and Secretary of State Medical Societies and to President of State Boards of Health.
3. Members National and special committees.
4. Secretaries District Branches New York State Medical Society.
5. Members National and special committees.
6. Superintendents State Schools for the Blind.

PROPHYLACTIC

Nitrate of Silver—Sample ampules made by Parke, Davis & Co.; Estimated cost free distribution in New York State—$3,000; Estimated cost exclusive of New York City—$1,500; (Estimates by Dr. H. D. Pease, State Hygienic Laboratory).

ADDRESSES

Medical Society State of New York—1907.
American Public Health Association.
American Association of Obstetricians and Gynecologists—1907.
American Association of Workers for the Blind—1907.
National Congress of Mothers—1908.
Conference of State and Provincial Boards of Health of North America—1908.
Ninth Conference Charities and Corrections, Elmira, N. Y.—1909.
American Society of Sanitary and Moral Prophylaxis—1909.

NATIONAL COMMITTEE OF THE AMERICAN MEDICAL ASSOCIATION

State	Ophthalmologist	Obstetrician	Sanitarian
Alabama	Samuel L. Ledbetter	W. H. Sanders	W. H. Sanders
Arizona	Ancil Martin	W. I. Simpson	Gov. J. K. Kibbey
Arkansas	J. W. Scales	Edw. Pentley	J. P. Runyan
California	H. Bert Ellis	F. T. Andrews	M. Regensberger
Colorado	Edward Jackson	W. A. Jayne	W. H. Davis
Connecticut	H. S. Miles	H. J. Ballard	Jos. H. Townsend
Delaware	J. A. Ellegood	F. Belleville	E. W. Cooper
Dist. Col.	Robert Scott Lamb	J. T. Johnson	W. C. Woodward
Florida	Columbus Drew	E. N. Liell	Joseph Y. Porter
Georgia	H. H. Martin	F. C. Hodgson	H. F. Harris
Idaho	Charles R. Hugel	.....	.....
Illinois	W. H. Wilder	C. S. Bacon	Geo. W. Webster
Indiana	Albert E. Bulson, Jr.	T. B. Eastman	W. A. Evans J. N. Hurty
Iowa	E. R. Lewis	W. B. LaForce	F. W. Powers
Kansas	Robert L. Alkire	F. Harper	L. A. Goden
Kentucky	F. Manning Brown	L. S. McMurtry	Jos. M. Mathews
Louisiana	H. Dickson Bruns	S. M. D. Clark	C. H. Irion
Maine	E. E. Holt	Fred W. Mann	A. G. Young
Maryland	Hiram Wood	W. A. B. Sellman	Wm. H. Welch
Mass.	Myles Standish	D. H. Craig	Henry P. Walcot
Michigan	W. R. Parker	J. H. Carstens	Angus McLean
Minnesota	Frank C. Todd	A. B. Gates	H. M. Bracken
Mississippi	James B. Bullitt	J. C. Blackstrom	B. F. Ward
Missouri	P. I. Leonard	T. J. Beattie	E. S. Ballard
Montana	John A. Donovan	D. Campbell	Wm. Treacy
Nebraska	Harold Gifford	W. O. Henry	W. T. Johnson
Nevada	.....	S. K. Morrison	.....
N. Hampshire	C. B. Hammond	W. B. Garland	Irving A. Watson
New Jersey	C. J. Kipp	Chas. L. Ill	B. S. Keator
New York	Charles S. Bull	H. J. Boldt	Eugene H. Porter
N. Carolina	H. H. Briggs	J. F. Highsmith	Geo. G. Thomas
N. Dakota	Henry Beaudoux	F. J. Campbell	J. Crassick
Ohio	Mark D. Stevenson	C. L. Bonnifield	C. O. Probst
Oklahoma	J. E. Fowler	.....	B. F. Hamilton
Oregon	J. F. Dickson	W. E. Lewis	E. B. Pickel
Pennsylvania	G. E. deSchweinitz	Jos. Price	Samuel C. Dixon
Rhode Island	C. W. VanBenschoten	D. F. Gray	A. C. Sprague
S. Carolina	E. P. Parker	E. S. Cathcart	T. Grange Simon
S. Dakota	E. O. Miller	.....	H. A. Peabody
Tennessee	G. C. Savage	R. E. Fort	J. A. Albright
Texas	J. C. McReynolds	G. E. Cantrell	Wm. M. Brumby
Utah	Fred Stauffer	F. S. Bascom	F. S. Bascom
Vermont	F. J. Arnold	C. W. Bartlett	C. S. Caverly
Virginia	J. A. White	R. S. Kight	R. W. Martin
Washington	David de Beck	Wm. M. Hall	J. M. Semple
W. Virginia	T. W. Moore	J. Cannaday	J. E. Robins
Wisconsin	Nelson M. Black.	C. H. Mason	C. A. Harper
Wyoming	.....	.....	Fred Horton

PRESS

Journal of the American Medical Association—Committee report.
Ophthalmoscope, England, through Dr. Sydney Stephenson.
Large number of medical journals which can only be mentioned in general have made editorial comment and printed papers on the subject of ophthalmia neonatorum.
Ohio Commission for the Blind has published a large number of popular articles on ophthalmia neonatorum in stereotyped form in county newspapers.

COMMITTEES OF STATE MEDICAL SOCIETIES

California—Dr. Kaspar Pischel, San Francisco; Dr. G. E. Brinckerhoff, Oakland; Dr. Thomas McCoy, Los Angeles.
Colorado—Dr. E. W. Stevens, Denver; Dr. Wm. H. Sharpley, Denver; Dr. Hugh Taylor, Denver.
Kentucky— Dr. S. C. Dabney, Louisville; Dr. J. A. Stucky, Lexington; Dr. L. C. Dunn, Henderson; Dr. T. H. Aud, Middleboro; Dr. Adolph Pfingst, Louisville.
Maine—Dr. H. F. Clough, Bangor; Dr. J. F. Hill, Waterville; Dr. F. Y. Gilbert, Portland.
Massachusetts—Dr. Oliver F. Wadsworth, Boston; Dr. Frederick E. Cheney, Boston; Dr. Francis P. Emerson, Boston; Dr. David Harrower, Jr., Worcester; Dr. John W. Bartol, Boston; Dr. F. M. Spalding, Boston, Mass., Secretary.
Missouri—Dr. P. I. Leonard, St. Joseph; Dr. R. McLemore, Nevada; Dr. J. H. Thompson, Kansas City.
Ohio—Dr. Mark D. Stevenson, Akron; Dr. John W. Murphy, Cincinnati; Dr. Wm. E. Bruner, Cleveland; Dr. Horace Bonner, Dayton; Dr. Walter H. Synder, Toledo. (Advisory committee to *Ohio Commission for the Blind.*)

COMMITTEES OF SPECIAL MEDICAL SOCIETIES

American Academy of Ophthalmologists and Oto-Laryngologists—Dr. A. A. Hubbell, Buffalo, N. Y.; Dr. A. R. Baker, Cleveland, Ohio; Dr. Edward Jackson, Denver, Colo.
American Public Health Associataion—Dr. F. Park Lewis, Buffalo, N. Y.; Dr. G. A. Harper, Madison, Wis.; Dr. H. D. Pease, Albany, N. Y.
American Association of Obstetricians and Gynecologists—Dr. R. E. Skeel, Cleveland, Ohio; Dr. Magnus A. Tate, Cincinnati, Ohio; Dr. O. H. Elbrecht, St. Louis, Mo.
American Ophthalmological Association—Dr. Lucien Howe, Buffalo, N. Y.; Dr. Edward Jackson, Denver, Colo.; Dr. P. A. Callan, New York City.
Conference of State and Provincial Boards of Health of North America—Dr. C. H. Irion; Dr. A. C. Moerk.
American Association of Workers for the Blind—Dr. F. Park Lewis, Chairman.
New York Association for the Blind—Hon. P. Tecumseh Sherman, Chairman, New York City; Dr. Eugene H. Porter, Albany, N. Y.; Dr. Thomas Darlington, New York City; Dr. Charles Stedman Bull, New York City; Dr. J. Clifton Edgar, New York City; Mrs. Edward R. Hewitt, New York City; Miss Winifred Holt, New York City; Dr. F. Park Lewis, Buffalo, N. Y.; Dr. John Izard Middleton, New York City; Mr. Thomas M. Mulry, New York City; Mrs. William B. Rice, New York City; Miss Louisa Lee Schuyler, New York City; Miss Lillian Wlad, New York City; Mr. George A. Hubbell, Executive Secretary, New York City.
British Medical Association—Dr. Sydney Stephenson, Chairman; Dr. R. C. Buist, Vice-Chairman; Dr. Cecil Shaw; Dr. Helm; Dr. C. J. Martin, F.R.S.; Mr. Arnold Lawson, representing Ophthalmological Society; Mr. George Carpenter, Section Diseases Children Royal Society of Medicine; Dr. Ed. Sargent, Incorporated Society of Medical Officers of Health. Central Midwives Board has not yet appointed a committee.
France, Committee on the Blind—Includes a medical man belonging to the Quinze-Vingts, and two belonging to the Syndicat general des Oculists francais, all to be elected by their colleagues. Committee to report on, (1) the prevention of blindness in France; (2) the effect of the law of July 14th 1905, dealing with the obligatory assistance of the indigent blind; and (3) the possibilities of rendering help by means of workshops for the blind.

FROM REPLIES TO CIRCULAR LETTER TO SUPERINTENDENTS OF SCHOOLS FOR THE BLIND

SCHOOL.	1908-9 Total Registration.	Cases of O. N.	No. From Cities Over 10,000.	No. From Villages and Country Districts.	Entirely Dependent Children.	Children of Self-Supporting Parents.	Proportion Through Blindness Never Wholly Self-supporting.	Annual Per Capita Cost for Maintenance.
Alabama Academy for the Blind	95	19	4	15	0	95	****	$230.00
Arkansas School for the Blind	206	32	6	26	150	56	—	233.00
California Inst. Deaf and Blind	72	10	35	37	0	72	—	*290.00
Connecticut Nursery for the Blind	40	11	26	14	8	***	no	322.26
Iowa College for the Blind	166	*18 %	15 %	85 %	12 %	—	20 %	190.00
Kentucky School for the Blind	107	40	20	20	20	20	no	238.73
Maryland School for Blind (white)	91	17	64	27	5	86	†	327.50
Maryland School for Blind (colored)	19	3	12	7	**	19	—	250.00 } 1907-8 }
Massachusetts Perkins Institute	318	83	64	8	4	71	—	403.15
Michigan School for the Blind	124	(1) 18	14	20	21	22	*½	283.61
Mississippi Institute for the Blind	46	6	2	4	1	45	no	*250.00
Missouri School for the Blind (2)	110	26	13	13	—	22	††17	357.42
Montana School for the Blind	19	1	10	9	3	16	*⅔	373.33⅓
New Mexico Institute for the Blind	38	12	1	9	9	3	1	*275.00
North Carolina School for the Blind	264	32	45	219	264	55	††½	*200.00
North Dakota School for the Blind (3)	20	23	2	18	2	18	4	††380.00
Pennsylvania Institute for Blind, Pittsburg	129	33	17	16	4	26	* 6	333.09
South Dakota School for the Blind	31	5	0	5	0	5	no	262.00
Ohio State School for the Blind (4)	261	74	53	21	2	72	no	325-350
Tennessee School for the Blind	238	47	70	168	15	223	—	200.00
Washington School for Defective Youth	34	29	12	26	**	34	95 %	250.00
Wisconsin School for the Blind	100	30	14	16	15	15	¾	7 per wk.

(1) 20 congenital
(2) Of total number enrolled since founding of school (1132) estimated that 20 per cent are blind from ophthalmia neonatorum.
(3) School only open one year
(4) For present year new admissions 48, of which 10 were adults and 2 not eligible and 7 were blind from ophthalmia neonatorum. Seven out of 36 equals about 20 per cent. blind from this cause.

* About
** None
*** Nearly all.
**** Cannot tell
† Cannot estimate
†† Probably
††† At least

REPORT FROM HOSPITALS IN NEW YORK STATE ON USE OF PROPHYLACTIC IN EYES AT BIRTH
(Obtained through Secretary of the Committee on Prevention of Blindness, New York Association for Blind)

Hospitals.	Prophylactic Used.			Effectiveness.	Degrees of Reaction.	Remarks.
	Sil. Nitrate. Per Cent.	Argyrol. Per Cent.	Other Solutions. Per Cent.			
Albany:						
Albany Hotel..	1	....	.....	Very successful.....	Quite severe, passes away in 2 or 3 days.	
Buffalo:						
Women's Hospital.	2					
Erie County Hospital.	2	....	.....	Excellent.....	Temporary reaction.	Have large obstetrical practice.
St. Mary's Maternity.	2	....	.....	Effective except 1 instance...	Slight swelling of eyelids; no reaction.	
New York City:						
Lincoln Hospital.	1 and 2	....	.....	.....	Two per cent. reaction irritating; all amenable to treatment.	Have used only 1 per cent. solution for past year.
Mt Moriah Hospital.	....	....	.....	.....	.....	Hospital not in operation yet; letter referred to Medical Board.
Metropolitan Hospital.	1 or 2	25	.....	Good results from argyrol. ..	.....	Very few cases of O. N. Had used sil. nitrate 1 to 2 per cent., slight reaction. For past year used argyrol with as good results. Think it safer in nurse's hands.
N. Y. Maternity Hospital.	2	....	.....	.....	Reaction 48 hours.....	Most of the few cases of O. N. may have been due to 2-day infection.
Post-Graduate Med. School and Hospital.	1	....	.....	Effective in vast majority of cases.	Mild in occasional case.	
Sloan Maternity Hospital.	....	20	.....	.....	.....	Do not use nit. sil. because of reaction with 2 per cent. Results not as good with 1 per cent. as with 20 per cent. argyrol.
Volunteer St. Gregory Hospital.	....	....	.....	.....	.....	Referred inquiry to physicians.
Boroughs Brooklyn, Queens and Richmond:						
The Brooklyn Hospital.	....	20	.....	Very beneficial results.		
Cumberland Street Hospital.	....	25	.....	Effective in all cases.....	None.....	Degrees of reaction from sil. nit. (?) none.
Flushing Hospital and Dispensary.	....	20	.....	Effective in every way.....	Very little reaction.....	No cases of infection.
German Hospital.	2	....	.....	Effective in all cases.....	Positive reaction.	
Kings County Hospital.	1	1	.....	.....	Sil. nit. practically nil.....	As result of treatment rarely have case of O. N.
Long Island College Hospital.	1 to 1	10 to 20	.....	Failures: nitrate 2 per cent. almost none; 1 per cent. slightly more frequent; 10 to 20 per cent. argyrol, very rare.	Two per cent. nitrate, frequently some reaction. 1 per cent. less; argyrol none.	Argyrol given preference because less irritating.
Methodist Episcopal Hospital.	1 and 2	....	.....	Seems very effective.....	Hardly any.	
S. S. Smith Infirmary.	2	....	.....	Very effective.....	Slight; no serious reaction.	
Williamsburg Hospital.	2	....	.....	Perfect.....	None.	
Onondaga:						
Onondaga County Hospital	....	....	Boric Sol.	.....	.....	Never had a case of ophthalmia neonatorum.
Rochester:						
Rochester Homeopathic Hospital.	1	....	.....	.....	Good deal of swelling and discharge from eyes in 3 or 4 cases.	No ophthalmia neonatorum in cases where sil. nit. was used.
Rochester City Hospital.	....	20	.....	.....	Reaction scarcely noticeable.	Almost never case of O. N.
Syracuse:						
St. Joseph's Hospital.	....	....	Boric acid.	Treatment always effective..	.....	No case of O. N. If doctor wishes 1 per cent. of sil. nit. or argyrol used.
Syracuse Hosp. for Women and Children.	1	....	.....	Always effective except 1 case.	Not any.	
Syracuse Homeopathic Hospital.	2	....	.....	Proved effective.....	Reacts slightly; passes away in day or two.	Most cases private; use 2 per cent. sol. when ordered by physician.
Watertown:						
St. Joseph's Hospital.	2	....	.....	.....	.....	Had case of O. N. where sol. was not used.
Utica:						
Faxton Hospital.	....	....	.....	.....	.....	Very seldom used by doctor. Both 1 and 2 per cent. have been used.
New York, Borough of Brooklyn:						
The Jewish Hospital.	1	25	.....	.....	Slight in about 10 per cent., moderate in 5 per cent. (seropurulent); bacterial examination negative.	One case of O. N. Have used sil. nit. 1 per cent. in the eyes of all infants up till within 2 months. One case O. N. in 316 maternity cases since opening of obst. ward, 1906. Recoverd completely. At present use 25 per cent. argyrol freshly made once a week. Think we have the same degree of prevention with less reaction.

PROGRESS OF OPHTHALMIA NEONATORUM CAMPAIGN IN STATES AND TERRITORIES, MAY, 1909

Information gathered from answers to three circular letters sent out February, 1908, December, 1908 and March, 1909.

Alabama—January, 1908. Fairly good health law requires reporting of contagious and infectious diseases but does not include ophthalmia neonatorum. Would take subject up with State Medical Society April, 1908. No answer to last letter.

Arizona.—Making effort to do something along these lines. No midwifery laws—one now before legislature on registering of vital statistics which requires registry of midwives with local registrars. County Medical Society has passed resolutions to secure law for registry of midwives. Registering of births very poorly complied with.

Arkansas.—Apparently nothing has been done. City of Little Rock requires early registration of births, no regulations relative to ophthalmia neonatorum.

California.—Committee appointed by President State Medical Society in April, 1908. At meeting March 5, 1909, Los Angeles County Medical Association adopted resolutions regarding ophthalmia neonatorum.

Colorado.—Committee appointed in April, 1908, by State Medical Society and State Board of Health expressed willingness to cooperate.

Connecticut.—Law passed in 1895 in regard to reporting ophthalmia neonatorum. Two arrests of midwives for violation of this law—both freed by judge in court.

Delaware.—December, 1908—willing to help. No later reports.

District of Columbia.—Law of June 3, 1896, requires examination and registry of midwives. April 3, 1909.—Health officer has had statement regarding prevention of ophthalmia neonatorum printed on covers of books in which birth certificates are bound for distribution.

Florida.—No action except in an advisory way. Subject brought before State Association in April, 1908. No action taken. Change in Health Statute may give Board legal authority to do something. Committee interested and doing what it can.

Georgia.—March 1909—President of County Society in annual address mentioned necessity of action against ophthalmia neonatorum. Birth certificates are required. Subject presented to local county and district societies.

Illinois.—February, 1908—Commissioner of Health says the department will do what it can. Births poorly reported in Chicago—do not go to Health Department but to County Clerk—estimated that about 40 per cent. are reported. Secretary State Medical Society writes that subject was taken up about ten or twelve years ago and as a result law was enacted but no prosecutions resulted. 1909—Member of Commission for Blind hopes for permanent commission and legislative action. Law for prevention of blindness enacted by General Assembly copies of which Board of Health will send to every registered midwife in the state.

Idaho.—Registration of births required. Paper on ophthalmia neonatorum read before State Medical Association and printed in Medical Sentinel.

Indiana.—Article in recent Bulletin of State Board of Health on ophthalmia neonatorum. Birth certificates have question: "Were precautions taken against ophthalmia neonatorum?" Certificates must be filed in 20 days. Two or three County Societies have passed resolutions.

Iowa.—February, 1908—President State Medical Society approves and will incorporate subject in annual address and appoint committee. (No notice of committee appointed.) Members of committee doing active work.

Kansas.—Member of committee glad to aid in work. No recent report.

Kentucky.—February 1908—Committee appointed by President State Medical Society. Circular issued by State Board of Health to Health Officials, physicians and people of Kentucky on prevention of ophthalmia neonatorum. Sent to members of medical profession. March 1909—Six years ago attempt made by State Medical Society to pass law for reporting ophthalmia neonatorum—failed in its enactment. Birth certificates registered in large cities but doubtful about country districts.

Louisiana.—February, 1908—Committee appointed by State Medical Society will render what assistance it can. March 1909—Symposium on ophthalmia neonatorum planned for medical meeting in near future.

Maine.—March, 1908—Committee appointed by State Medical Society. An act (date of enactment not given but evidently not recent) on Prevention of Blindness.

Maryland.—February, 1908—Law enacted by legislature of 1894 requiring nurses, midwives and other persons, not physicians, to report cases of ophthalmia neonatorum. Secretary of Board of Health will aid in getting statistics which he considers most important work. March 1909—Midwives required to register with local health authorities. Births must be registered within 4 days. Commission for Improving Condition of Blind appointed by legislature 1906. Was to report in 1907. New midwife bill will be passed at coming meeting of State Society in May.

Massachusetts.—Massachusetts Association for the Blind and Boston Department of Health each issued circular after the amendment of contagious law in 1905 making ophthalmia neonatorum a reportable disease. The Association for the Blind also has a social worker who has made a special study of cases in the Infirmary and made written report of the investigations. Committee State Medical Society has issued a folder on ophthalmia neonatorum, the preventive treatment, suggestions and treatment of the disease.

Michigan.—Law enacted 1895 requires midwife, nurse or attendant to report ophthalmia neonatorum in writing within 6 hours. Law not in practical operation.

Minnesota.—Law requiring a yearly license fee preceded by an examination or diploma from every midwife in the state. March, 1909—State Board of Health regulations require reporting of diseased eyes among infants, and filing of birth certificate within ten days. Inquiry on birth certificate whether prophylactic was employed.

Mississippi.—February, 1908—Secretary State Medical Association approved and promised help.

Missouri.—March, 1908—Committee State Medical Society.

Montana.—Resolutions introduced at State Medical meeting but no action taken. March, 1909—Bill governing practice of midwifery and one on ophthalmia neonatorum failed to pass the legislature.

Nebraska.—State Medical Association directed member of National Legislative Council to have State Board of Health incorporate ophthalmia neonatorum with contagious diseases to be reported to local boards of health within 24 hours after their occurrence. On January 1, 1908, rules and regulations adopted by State Board of Health went into effect. March, 1909—Lay movement in connection with Committee of One Hundred. Subject informally discussed at State Medical meeting.

Nevada.—February, 1908—Secretary State Medical Society will endeavor to get together statistics by communicating with every doctor in state and will bring subject before State Association. Law requiring record of births not being heeded by physicians. No later reports.

New Hampshire.—March, 1909—Bill now before Public Health Committee of New Hampshire legislature. No law or regulations at present in state.

New Jersey.—1884 circular on ophthalmia neonatorum issued by State Board of Health and sent to all physicians and midwives. 1895 law passed for prevention of blindness. Law defective—being revised—will have it passed at present (1909) session of legislature. 1896—Subject discussed before State Medical Society and practitioners frequently urged since to use preventive. Midwives licensed after examination.

New York.—State law for Erie, Niagara and Chautauqua counties requires examination and registration of midwives and New York City Health Department has power to conduct examinations. The New York State Commission to Investigate the Condition of the Blind—1906—devotes a portion of its report to ophthalmia neonatorum and its prevention.

Medical Society, County of Erie—Special committee.

New York State Medical Society—Committees and resolutions.

New York City—Physicians required to report ophthalmia neonatorum to Board of Health. Health rule requires midwives to carry 1 per cent. silver nitrate as a part of her equipment and summon a physician if ophthalmia develops.

State Health Department—Sent circular letter to secretaries of the county medical societies with return postcards, secretaries to mail card to each member of his county society who by signing the card pledged to use a prophylactic against ophthalmia neonatorum. Question to be put on birth certificate "Did you employ a preventive for ophthalmia neonatorum? If not, why not?" Free distribution of containers of nitrate of silver in the near future.

Special Committee on Prevention of Blindness New York Association for the Blind—Has issued three pamphlets on ophthalmia neonatorum 22,810 copies of Nos. 1 and 2 have been distributed in the state and 3,505 outside of the state. No. 3—in all 675 copies. Committee has received $5,000 appropriation from the Sage fund for the continuance of its work and through the efforts of the committee an item of $5,000 has been inserted in the Supply Bill now before the Governor and if secured this amount will be at the disposal of the State Board of Health for its work in the prevention of blindness. The committee has also secured the passage of a bill for the notification of births within 36 hours instead of 10 days as before.

North Carolina.—February, 1908—State Medical Society will cooperate. No later report.

North Dakota.—Registration of births required. Several local societies adopted resolutions recommending use of prophylactic. Nothing systematic has been done. Lay movements transitory.

Ohio.—March 1908—Proposed amendment to bill establishing commission for the blind which inserted clause "recommending to next general assembly necessary legislation for prevention of blindness with special reference to the new-born." Law in existence making it a misdemeanor for a midwife or general practitioner to treat a case of purulent ophthalmia in the new-born without notifying an oculist or sending the child to some hospital. Fine is heavy and an imprisonment clause. Law not operative at date of writing—1908. State law passed in 1892 concerning ophthalmia neonatorum and suggested that resolutions be adopted by Eye and Ear Section of Medical Society. Subject also urged with Ohio Commission for the Blind. Through Blind Relief Commission resolutions introduced before Cincinnati Academy of Medicine. Same resolutions will be presented to State Medical Society.

Oklahoma.—1908—President State Medical Association will aid in campaign. No health laws at that time in Oklahoma. No later reports.

Oregon.—Letters of approval from Secretary State Medical Society and from ophthalmologist on state committee. 1909—Births have to be reported.

Pennsylvania.—Proposed resolution for State Medical meeting. Circular issued by State Commissioner of Health, and old law passed in 1895 put into force. Circular letter with copy of law sent to physicians in state and to the secretary of boards of health. At December, 1908, meeting of Kensington Branch Philadelphia County Medical Society had symposium on ophthalmia neonatorum with lantern demonstration.

Rhode Island.—1909—Secretary State Board of Health will make yearly canvass of physicians to ascertain the amount of blindness from ophthalmia neonatorum. With the inquiry will send dropper and proper amount of 1 per cent. silver nitrate and will place extra supplies at diphtheria outfit stations and repeat yearly. May, 1909—This has not been done.

South Carolina.—Ophthalmologist on committee interested and willing to co-operate with committee A. M. A. 1909—Early registration of births in some towns. Effort being made to have physicians report all infectious diseases.

South Dakota.—

Tennessee.—1908—Subject to be presented to State Medical Society and statistics gathered from Tennessee School for the Blind. 1909—Information indefinite; probably something concerning ophthalmia neonatorum embodied in amendments to medical laws.

Texas.—1909—Birth certificates must be sent in within 30 days. Subject of ophthalmia neonatorum considered at 1908 meeting of State Medical Association.

Utah.—Subject of ophthalmia neonatorum to be brought before next meeting (does not say whether State Medical or Health Board meeting). December, 1908. No further report.

Vermont.—Midwives required to make birth reports same as physicians. Certificate registered within 10 days.

Virginia.—

Washington.—In favor of movement. 1908—A bill entitled, "A Law for the Prevention of Infantile Blindness" was to have been introduced at the 1908 session of the legislature. (Not notified whether passed or not.)

West Virginia.—1894—Resolutions adopted and legislation proposed. In December, 1908, Secretary State Medical Association sent letter on ophthalmia neonatorum to County Secretaries.

Wisconsin.—Law requiring registry of midwives with local registrar and registry of birth certificate within 5 days. 1909—Proposed bill regulating practice of midwifery and one for prevention of ophthalmia neonatorum. Active work being done.

Wyoming.—1908—Midwives or unlicensed practitioners not allowed to practice in the state. Births not reported by physicians. No record of cases of ophthalmia neonatorum except in State Hospitals.

Panama.—Circular letter sent out by Col. Gorgas to all physicians in charge of stations and hospitals. Information asked—number of cases of ophthalmia neonatorum during year, results, prophylactic used, strength. Five cases reported, all complete recoveries.

Philippine Islands.—1908—Local laws regulating practice of midwifery but midwives much below the standard. Births supposed to be reported. Bureau of Health to collect statistics. Report that disease is very rare probably due to large infant mortality. No further report.

Hawaii.—February, 1908—Attempted census of blind of Islands resulted in finding 28 adults and 7 children. Circular letter of the Committee on Ophthalmia Neonatorum forwarded for distribution. No further report.

QUESTIONS IN CIRCULAR LETTER MAILED MARCH, 1909

I. LAWS ENACTED OR PROPOSED GOVERNING THE PRACTICE OF MIDWIFERY OR THE REPORTING OF CASES OF OPHTHALMIA NEONATORUM

Affirmative

Arizona—No law at present but modification of the Model Law which requires the registration of midwives with local registrars is now in the legislature.

Connecticut—Through efforts of Connecticut Medical Association, following resolutions by Dr. H. W. Ring, state passed law in 1895: Sec. 1. Should one or both eyes of infant become inflamed, swollen or reddened at any time within 2 weeks after birth, shall be duty of midwife or nurse to report in writing within 6 hours to health officers or legally qualified practitioner of city, town or district where parents reside that such inflammation, etc. exists. Sec. 2. Failure to comply with provisions of this act punished by fine not to exceed $200 or imprisonment not to exceed 6 months, or both. Two midwives brought to trial for neglect were not convicted because the judges said that any baby was liable to have sore eyes. Affair had wide publicity and many mothers now ask their physicians to use drops.

Dist. of Columbia—Since law of June 3, 1896, no midwife can practice without license or secure license without examination. In April, 1909, Health Officer had following notice printed on book covers in which birth certificates are bound for distribution:

Notice

The Health Officer desires to call attention to the widespread agitation that is now going on with respect to the prevention of such blindness as arises from inflammation of the eyes of new-born children. Aside from the importance of preventing such blindness as a public duty, the fact that the laity is becoming aware that the adoption of proper measures at the time of birth may prevent such a catastrophe renders it peculiarly important that physicians and midwives, in their own interest, adopt in their practice, if they have not already done so, such measures as have the support of the medical profession for the prevention of such loss of eyesight.

Wm. C. Woodward, M.D.,
Health Officer.

Illinois—State Law on the Prevention of Blindness makes punishable by a fine not to exceed $100 or imprisonment not over 6 months, or both, any neglect of midwife or nurse to report in writing within 6 hours to health officer or practitioner any inflammation or redness in infant's eyes within two weeks after birth.

Kentucky—Six years ago attempt made by State Medical Society to pass law for reporting of ophthalmia. Failed in enactment.

Maine—Fine not to exceed $100 or imprisonment not to exceed 6 months for failure of midwife, nurse or person having charge of infant to report any redness or inflammation of the eyes occurring within four weeks after birth to legally qualified practitioner of city, town or district.

Maryland—Law 1894 requires midwife to report ophthalmia neonatorum to physician or health officer and she must not apply remedies herself. Several convictions secured under this law. New Midwife Bill has been drawn up and will be passed on at State Medical meeting in May. Midwives now required to register with local health authorities but without educational qualifications.

Massachusetts — Any nurse, relative or attendant failing to report in writing to Board of Health within 6 hours any discharge, swelling, inflammation or redness in eyes of infant, subject to fine of not more than $100. Physician shall forfeit not less than $50 or more than $200 for refusal or neglect to report case under his care of inflamed, red, swollen or discharging eye in newly-born infant.

Michigan—Failure on part of any midwife, nurse or other person having charge of infant to report in writing within 6 hours any inflammation, redness or formation of pus, occurring in the eyes within 2 weeks after birth, to local health officer or some legally qualified practitioner in city, town or district, shall be punished by a fine not to exceed $100 or imprisonment not to exceed 6 months, or both, in the discretion of the court. "Law not in practical operation as far as the reporting is concerned and therefore the use of preventive measures is optional on the part of the attending physician."

Minnesota—Regulations State Board of Health. One or both eyes of infant become inflamed, reddened or diseased within 2 months after birth, shall be duty of midwife, nurse, parent or other person having charge of infant to report in writing within 12 hours to local health officer of city, village or township. Health officer on receiving report shall visit child and provide immediate medical treatment unless already under charge of practitioner.

Montana—Bills governing midwifery and reporting of ophthalmia failed to pass Legislature of 1908-09.

New Hampshire—Bill now before the public health committee of the Legislature looking toward the control of ophthalmia neonatorum.

New Jersey—In 1884, on recommendation of Dr. C. J. Kipp, circular giving method of prevention and treatment of ophthalmia neonatorum issued by State Board of Health and sent to all known physicians and midwives. In 1895 law passed for the prevention of blindness. This law found defective and State Attorney General requested to put it in shape and it will be passed by Legislature at this session. Midwives are licensed after examination. In 1896 subject of ophthalmia neonatorum brought before the State Medical Society and preventive measures urged. Number of cases brought to dispensaries much smaller than it was years ago. Act introduced in Senate Feb. 9, 1909, whereby applicant in midwifery is examined in cause and effect of ophthalmia neonatorum. Section 6 revokes license for failure to secure attendance of a reputable physician in case of..... or inflammation or discharge from eyes of new-born infants.

New York—Law for Erie County enacted in 1885 makes punishable by fine from $50 to $100 and forfeiture of license any attempt to practice midwifery without having secured certificate through examination by Board of examiners, payment of fee of $10 and recording of certificate by county clerk. (Similar law in two other counties and one city.) Concerning ophthalmia neonatorum, state law enacted in 1892, modified in 1901, makes it a misdemeanor for midwife, nurse or other person to fail to notify local health officer or practitioner immediately of any redness, swelling, etc. of eyes of infant within two weeks after birth.

Ohio—State law, 1892, requires midwife, nurse or relative to report in writing within 6 hours to physician or local health officer any inflammation, redness, swelling or discharge of eyes of new-born infant, under penalty of fine of $5 to $100 or imprisonment from 30 days to 6 months, or both. Law making the treatment of ophthalmia neonatorum by midwife or general practitioner without notifying an oculist or sending child to hospital, a misdemeanor. Fine is heavy and an imprisonment clause. *Not operative.*

Negative

Arkansas.

California.

Florida—Health Officer doubtful about authority of board to make rules and thinks statutory law would not be observed without action being taken in court by parties affected through neglect or ignorance of restrictive measures.

Georgia — No efficient laws on midwifery, none on ophthalmia neonatorum.

Indiana—Health Officer says Board could require by its rules reporting of cases but does not think it will at present because of trouble to get other contagious diseases reported.

Louisiana.

Nebraska — No laws but rule of Board of Health giving instructions for prophylactic instillation of silver in Omaha. Nothing obligatory.

North Carolina.

North Dakota.

South Carolina.

Texas.

Vermont—No laws but midwives required to report births.

Affirmative

Pennsylvania—Law of 1895 makes it the duty of midwives and nurses to report to health officer or practitioner in writing within 6 hours any indications of ophthalmia neonatorum. Health officer to give instructions regarding treatment. Penalty, fine not to exceed $200 or 30 days imprisonment, or both. Commissioner of Health will enforce this law and has sent copies of it with circular letters to physicians in the state and to secretaries of all boards of health.

Rhode Island—Law of April 19, 1892, makes punishable by fine not exceeding $100 or imprisonment not exceeding 6 months, or both, neglect of any midwife, nurse or other person to report in writing within 6 hours to the health officer or practitioner of medicine, inflammation or redness of the eyes of an infant in their care. Every health officer shall furnish a copy of this act to every midwife or nurse in his city or town, secretary of state shall cause sufficient number of copies to be printed and supply same to the health officers.

West Virginia—At State Medical Meeting, 1894, after paper on "Legislation for the Prevention of Blindness" following resolution unanimously adopted and proposed law passed one House but failed in the other.

WHEREAS: The Medical Society of West Virginia recognizes the necessity of legislation for the prevention of blindness by ophthalmia of the new-born, be it

Resolved: That it heartily recommends (through its Committee on Legislation) that the people of the state of West Virginia represented in Senate and Assembly, do enact as follows: Fine not to exceed $200 or imprisonment not to exceed 6 months, or both, for failure of midwife or nurse to report in writing within 6 hours to legally qualified practitioner any inflammation, swelling or redness occurring in eyes of infant within 2 weeks after birth. At the same meeting it was resolved that the people of the state enact that an examination of the blind, deaf and dumb in the state asylum be made twice a year by a physician expert in such diseases.

Wisconsin—Since October, 1907 every midwife required to register with local registrar and birth certificate must be filed with local registrar within 5 days after date of birth. Feb. 16, 1909, proposed bill regulating practice of midwifery referred to Committee on Public Health and indefinitely postponed and March 4, 1909, second bill on practice of midwifery proposed requiring midwives to be examined by board of examiners, registered, fee of $10 for examination and $5 for certificate paid. Good moral and professional character must be sworn to by two reputable physicians or surgeons and one layman, preferably a clergyman. The consent of at least 6 members of the Board necessary to issuance of certificate. Board of Examiners have power to make such rules and regulations governing examinations as may be necessary. Certificate to be filed with registrar of deeds of county or registrar of vital statistics in city. Violation of any provision of this act punishable by fine of not less than $25 or more than $100 for each offense or imprisonment not exceeding 6 months, or both. Bill on Prevention of Ophthalmia Neonatorum introduced Feb. 16, 1909, reached Senate, reported for concurrence by Committee on Public Health and is in hands of Committee on Judiciary. State Board of Health authorized to make and enforce such rules and regulations and to publish and distribute such literature to midwives, doctors and nurses or other persons as it considers necessary for the prevention of ophthalmia neonatorum. Requires such prophylactic treatment by physicians, midwives, nurses and other attendant as State Board of Health may determine and the reporting by nurse, parent or attendant to local board of health within 6 hours of any case developing within two weeks after birth. Report to be made in writing. Board of Health to notify physician in attendance or employ competent physician at expense of town to examine and treat case. On receipt of report, no physician being in charge, the health officer shall notify parents of danger to infant's eyes and shall also enclose directions for proper treatment. Fine of not over $100 for violation of this act.

Negative

II. ARE PHYSICIANS REQUIRED TO REPORT THIS DISEASE?

Affirmative

Massachusetts—Physician shall immediately give notice in writing over own signature of ophthalmia neonatorum to selectmen or Board of Health of the town or forfeit not less than $50 or more than $200 for each offense.

New York—A regulation of the New York City Board of Health requires all physicians to report such cases at once to the Board.

Negative

Arizona.
Arkansas.
California.
Connecticut.
District of Columbia.
Florida.
Georgia.
Idaho.
Indiana.
Kentucky.
Maine.
Maryland.
Michigan.
Minnesota.
Montana.
New Hampshire.
New Jersey.
North Carolina.
North Dakota.
Ohio.
Oregon.
South Carolina — Effort being made to have physicians report all contagious diseases.
Wisconsin.

III. ARE PROPHYLACTICS PROVIDED BY THE HEALTH DEPARTMENT FOR GRATUITOUS DISTRIBUTION?

Affirmative

New York—An item of $5,000 was inserted in the Supply Bill, this sum to be used by the State Department of Health for the Prevention of Blindness —more especially for the suppression of infant ophthalmia. This will enable the State Health Commissioner to supply a free prophylactic (through local Health Officers) to physicians and midwives, to be used for protecting the sight of children at birth.

Rhode Island—State Health Department has sent out a circular letter to physicians with a small box containing an amber vial of 1 per cent. silver nitrate and a dropper for use in the prevention of ophthalmia neonatorum. Duplicate outfits to be obtained, free, from the diphtheria stations. Accompanying the vial and dropper are directions for using with a request to report any objections to the form of the dropper or any bad results from its use. The circular letter also contains a copy of the law in regard to prevention of blindness.

Negative

Arizona.
Arkansas.
California.
Connecticut — Health department never been asked to give prophylactic. Would probably do so.
District of Columbia.
Florida.
Georgia.
Idaho.
Indiana.
Kentucky.
Maine.
Maryland.
Minnesota.
Montana.
New Hampshire.
New Jersey.
North Carolina.
North Dakota.
Ohio.
Oregon.
South Carolina.
Texas.
Vermont.
Wisconsin.

IV. DO THE REGULATIONS PROVIDE FOR THE EARLY REGISTRATION OF BIRTH CERTIFICATES?

Affirmative

District of Columbia — Certificates must be registered not later than the Saturday first ensuing after the expiration of three secular days immediately following the date of birth.

Maine — Early registration. Certificates sent to town or city clerk.

Maryland—Within four days.

Minnesota—Ten days.

Montana—Ten days.

New Hampshire—Six days.

New York—The Legislature has passed a bill requiring all births to be reported within 36 hours after the child is born. Former law ten days.

North Dakota—

Ohio—Ten days.

Vermont—Ten days.

Wisconsin—Within five days with local registrar of vital statistics.

Negative

Arizona—Present system secures only small percentage.

Arkansas — City of Little Rock requires early registration.

California.

Connecticut — Certificates filed on or before 7th day of month next after birth.

Florida — Law providing for registration of birth certificates very irregularly complied with.

Georgia — Required. Time not given.

Idaho—Required. Time not given.

Indiana—Twenty days.

Affirmative

Negative

Kentucky — Certificates registered in large cities; not sure about towns

Massachusetts—On or before 15th of each month.

New Jersey — Thirty days

North Carolina

Oregon — Time not given

South Carolina—Some local boards require early registration

Texas—Thirty days

V. Is an Inquiry Made on the Birth Certificate Whether a Prophylactic Has Been Employed, and What Was the Reason for Its Omission When Omitted?

Affirmative

Indiana—Certificates have on them the question, Were precautions taken against ophthalmia neonatorum?

Minnesota—An inquiry is made on the birth certificate as to whether a prophylactic has been employed, etc

New York—Inquiry, "Did you employ a preventive for ophthalmia neonatorum? If not, why not?" will be placed on certificate in future.

Wisconsin—Will on new certificate

Negative

Arizona.

Arkansas

California.

Connecticut

District of Columbia.

Florida.

Georgia.

Kentucky.

Maine

Maryland.

Montana

New Hampshire.

New Jersey.

North Carolina.

North Dakota.

Ohio

Oregon

South Carolina.

Texas

Vermont

VI. Have Any Special Resolutions Been Proposed or Action Taken by the Medical Societies for the Control of This Disease?

Affirmative

Arizona — Cochise County Medical Society passed resolutions to secure a law for the registration of midwives

California—At Los Angeles County Medical Society, March 1909, program devoted to ophthalmia neonatorum and at next meeting resolutions adopted "that all members of the Association be urged to spread the knowledge of the great value of the Crede method of silver nitrate instillation as a preventive of ophthalmia neonatorum, and that all practitioners and midwives should use this method in obstetric practice That this Association request the California State Board of Health to make the prevention of ophthalmia neonatorum a matter of special consideration and action and that a copy of this resolution be sent to that Board and copies be sent for publication to the Bulletin of the Association and to the Journal of the Medical Society of the State of California"

[illegible] of the Connecticut [illegible] secured passage of [illegible]

Florida—Subject brought before State Association by its president in April, 1908 No action taken Official Bulletin, State Board of Health for January, 1909 contains article on the effort to prevent blindness, commending the present campaign and describing method of prevention

Georgia—At request of Dr Hodgson, president of county society, in annual address spoke of necessity of action Dr. Martin secured endorsement of movement in local county and district societies Subject to be presented in June

Idaho—Article read by Dr Hugel of Boise, on ophthalmia neonatorum before State Medical Association and article printed in Medical Sentinel

Indiana—Two or three County societies passed resolutions State society has taken no action but will at next annual meeting State Board has been talking the matter over throughout the state

Negative

Arkansas

District of Columbia

Louisiana — Symposium on ophthalmia neonatorum and hope to pass resolutions at state meeting in May

Maine

Nebraska — Some time ago resolution passed in medical society, but bill failed in legislature, will make another attempt at coming meeting

New Hampshire

North Carolina

Oregon

South Carolina

Texas — Subject presented at 1908 meeting of State Medical Society

Wisconsin — Secretary of State Medical Society suggests appointing committee for investigation of subject and collection of statistics.

Affirmative

Kentucky—State Medical Society appointed committee to draw up a circular in regard to the dangers and prevention of ophthalmia neonatorum. Circular distributed to members of medical profession in Kentucky

Maryland—In 1892 the State Medical Society endorsed the movement started by Dr Woods for a law requiring the reporting of ophthalmia neonatorum and an act was presented to the Legislature by a committee of the society

Massachusetts—State Medical Society appointed a committee of five in 1908 "To consider what measures should be taken by the Society to prevent the occurrence and secure the prompt and effective treatment of ophthalmia neonatorum" The committee has recently issued a folder on ophthalmia neonatorum, preventive treatment, suggestions, and treatment of the disease, with a copy of the Massachusetts law in regard to ophthalmia neonatorum In the folder the Committee advises for preventive treatment the instillation of a few drops of 25 per cent argyrol or 5 per cent protargol, which should be freshly prepared for each confinement case Suggests that doctor instruct nurses to report cases to him at once and call their attention to the law; that cases should be put under the care of an oculist when possible or sent to the hospital, that infectious nature of the disease should be impressed on members of the family Treatment after the disease develops wash eyes every 40 minutes with 3 per cent boric acid solution night and day and 25 per cent argyrol or 5 per cent protargol freely every 4 hours Folder to be distributed to members of the State Society and [illegible] and patients [illegible] has been pre- [illegible] Association and will be presented to State Medical Society at next meeting

Montana—At last meeting of the State Society a resolution was introduced referring to this matter but no action was taken Will be taken up at next meeting

New Jersey—In 1896 subject of ophthalmia neonatorum brought before State Medical Society and preventive measures urged and many times since prevention has been suggested No definite action taken

New York—At State Medical meeting it was resolved "That this Society appoint a State Committee . shall put itself in communication with the State Board of Health and with each County Society to adopt a method to put a stop to ophthalmia neonatorum

"That it be recommended that the State shall make sufficient appropriation to the State Board of Health to put necessary enactments into force, and to prosecute their violations

"That a law be passed compelling persons practicing midwifery to use such prophylactic as may be recommended by the State Board of Health Neglect of this to be prosecuted as a misdemeanor, except the person be a physician who does give a valid reason for the omission acceptable to the Board of Health or its Committee of the County Society to which he belongs

"That ophthalmia neonatorum be placed on the list of communicable diseases by the State Board of Health, and by all the local Boards of Health

"That every case of ophthalmia neonatorum be reported by any one to whose knowledge it may come to the Board of Health within 24 hours of the first symptoms of its manifestation Neglect to be prosecuted as a misdemeanor

"That energetic, concentrated and well ordered action be urged and taken at once by this State Society and that it work in harmony with the Central Committee of the American Medical Association and the State Board of Health"

First District Branch—It was moved that the Branch approve of the action of the American Medical Association to bring to the notice of the medical profession the abuses arising from negligence resulting in ophthalmia neonatorum, and further moved that a committee be appointed to inquire into the plan for the prevention of ophthalmia neonatorum Carried A committee was also appointed to cooperate with the State Department of Health in a plan now under consideration by the Division

Negative

Affirmative *Negative*

of Communicable Diseases. The president appointed the secretary of each County in the Branch as a member of this committee.

Second District Branch—Secretary was directed to send copies of a communication regarding ophthalmia neonatorum to the delegates of the Medical Societies constituting the 2d District Branch, these delegates to bring this matter before their respective societies for action.

Sixth District Branch — Resolution adopted advocating means for the prevention of blindness due to ophthalmia neonatorum and all members signed cards, as requested by the State Board of Health.

Eighth District Branch—Committee of the president of each County Society of the 8th District Branch appointed to see that the recommendations of the committee of the American Medical Association were brought before each county society and some action taken in the matter.

Third District Branch—Paper read on Ophthalmia Neonatorum.

State Department of Health—Letter to the secretary of each County Medical Society accompanied by ophthalmia neonatorum pledge postcard, which secretary was instructed to send to each member of his Society.

Medical Society, County of New York —Resolutions unanimously adopted regarding ophthalmia neonatorum and favoring a congress for studying ways and means for the prevention of blindness to be held in Washington in 1910.

North Dakota—Resolutions of several of the local societies have been adopted recommending the employment of prophylactics for ophthalmia neonatorum.

Ohio—Considering plans for a symposium on ophthalmia neonatorum and a special report to the State Society with a discussion at each district medical meeting. Also urged subject with members of the Commission for the blind. Resolutions presented to the Cincinnati Academy of Medicine endorsing the movement against ophthalmia neonatorum of the American Medical Association, pledging themselves to absolute cleanliness in obstetrical practice, recognizing the value of prophylactic treatment, urging the instruction of nurses and midwives, and asking of State Board of Health that ophthalmia neonatorum have the same consideration as any other infectious disease and that the law now on the statute books be enforced. Also that the birth certificate contain clause in reference to preventive treatment, that a report of all cases be required and investigated and recommending the cooperation of medical societies of the state with the State Health Department so that authority and adequate appropriation might be obtained for the successful carrying on of the work.

Pennsylvania—Symposium on ophthalmia neonatorum by the Kensington Branch of the Philadelphia County Medical Society.

West Virginia—In 1894 two resolutions adopted by the State Medical Society. (See under Question 1, affirmative, West Virginia.) Will be presented to State Association in October.

VII. HAVE ANY MEASURES BEEN TAKEN TO DETERMINE HOW LARGE A NUMBER OF NEW-BORN CHILDREN HAVE BEEN INFECTED OR WHO IS RESPONSIBLE FOR THESE INFECTIONS?

Affirmative *Negative*

Florida—Inquiry made at the State School for the Blind from which reply is received that there are no records of such cases, but that at an early date will incorporate inquiries upon admission blanks.

Louisiana—Unable to obtain any satisfactory data from State School for the Blind. Statistics meager.

Maryland—Had State Commission of Blind which was to secure list of blind persons in state with, among other information, cause and extent of blindness.

Nebraska—Some years ago inmates of School for Blind examined and found not more than seven or eight per cent. of the inmates suffering from effects of this disease.

Arizona.
Arkansas.
California.
Connecticut.
District of Columbia.
Georgia.
Indiana.
Kentucky.
Maine.
Montana.
New Hampshire.
New Jersey.
North Carolina.
North Dakota.
Oregon.
South Carolina.

Affirmative *Negative*

Ohio—Census now being taken of the blind, with the causes of blindness.

Wisconsin—In the investigation which has been made by the State Board of Control with assistance of State Board of Health in regard to the number of blind persons in the state reveals the fact that from 25 per cent. to 40 per cent. have become blind as a result of ophthalmia neonatorum.

VIII. LAY MOVEMENTS FOR THE CONTROL OF OPHTHALMIA NEONATORUM WHICH HAVE BEEN INAUGURATED?

Affirmative *Negative*

Illinois—Commission to Inquire into the Condition of the Blind, appointed by the Illinois State Board of Charities, in its report of December, 1908, suggested a form of law in which the Board of Health be vested with authority to publish and distribute such information and furnish such remedies as it deemed expedient to prevent the development of ophthalmia neonatorum, in public hospitals or institutions in which midwifery is practiced and in connection with the practice of midwifery. Rules, regulations, and ordinances to be enforced at the expense of the state. Any person violating any rule, regulation or ordinance to be guilty of a misdemeanor and punishable by a fine not to exceed $100 or imprisonment not to exceed 6 months, or both.

Maryland—The Mothers' Relief Society furnishes the services of a skilled woman physician to mothers. Has employed the services of a well qualified woman to look into the midwife question.

Massachusetts — Important work is being accomplished through the efforts of the Massachusetts Association for Promoting the Interests of the Blind in its efforts to prevent blindness resulting from ophthalmia neonatorum. Through the courtesy of the Massachusetts Charity Eye and Ear Infirmary, a physician who was also a social worker was permitted to visit daily the out-patient department of that institution and to use its records in a special inquiry concerning this subject on the basis of social service. The report of the investigations of this committee is of very great value and so supplemented the work of the dispensary physicians that the work accomplished cannot be too highly commended. In addition to a large amount of other valuable work 46 cases of ophthalmia neonatorum were individually investigated. Of these the birth of 31 children had been attended by a physician, 5 by a dispensary physician, 6 births took place in hospitals, 3 were attended by midwives and one was unattended by either physician or professional midwife.

"Of the 31 children whose birth had been attended by a private physician, 20 were referred to the Infirmary by the attending physician, 11 by other advice. Of the 5 attended by the dispensary physician all were referred to the Infirmary by him. Of the 3 attended by midwives, none was referred to the Infirmary by them. The 6 whose births took place in hospitals were all directly referred to the Infirmary. The one unattended by either physician or midwife was later sent to the Infirmary by a dispensary physician."

In a short history of twelve cases only two have been pronounced blind. "In three other cases, however, it is very doubtful if the children can be educated as seeing children, and they will probably be pushed into that already large group of 'border-line' cases of those who are neither blind nor seeing, and are a greater problem socially than the wholly blind."

"To measure fully the unfortunate results from this disease it is necessary to take into account also the very high mortality among the children of this group. Statistics gathered by the State Commission for the Blind for the period 1902-7, inclusive, show only 14 cases of blindness from infant ophthalmia in Massachusetts within that time. These statistics are necessarily incomplete and include only those children made wholly blind who have lived long enough to attract attention. They are in reality no index to the bad results from infant ophthalmia. From a list of 18 cases

Arizona.
Arkansas.
California.
Connecticut.
District of Columbia.
Florida.
Georgia.
Indiana.
Kentucky.
Louisiana.
Maine.
Minnesota.
Montana.
New Hampshire.
New Jersey.
North Carolina.
North Dakota — Lay movements only transitory.
Oregon.
South Carolina.
Texas.
Vermont.
Wisconsin.
West Virginia.

Affirmative

taken from the records of the Gardner Ward during the period covered by the commission's figures, 1902-7, all of whom were admitted to the hospital totally or partially blind at ages ranging from ten days to three months. 6 totally blind are known to have died since. 1 not found are totally blind if living; and in the case of the remaining 8 there is a question as to whether the children if living, can be educated as seeing children. This list is exclusive of the figures of the State Commission.

"The records of the Gardner Ward for this period, 1902-7, show that 577 cases of infant ophthalmia have been treated within that time. Of this number the cornea was involved in 117 cases before admission. However, the figures for the successive years show a decided improvement; for, whereas the number of cases in which the cornea was involved on admission in 1902 was more than one-third of the whole number treated, the number of such cases in 1907 was less than one-fifth of the whole. A corresponding improvement is shown in the matter of the age at which the infants are brought to the hospital, while the number treated in a year has doubled in that period."

"Too few cases are covered in this group to form any opinion as to the responsibility of midwives for neglect or ignorance in this disease, but it is generally well known that in Boston at least, so well covered by free dispensary services, the midwife finds comparatively little to do."

Nebraska—Lay movement in connection with the Committee of One Hundred but as yet nothing very definite has been done.

New York—Special Committee on the Prevention of Blindness, New York Association for the Blind. This committee has published three pamphlets of which 27,000 copies have been distributed. The second, a thirty page pamphlet entitled "Children Who Need Not Have Been Blind. Prevention a Public Duty," discusses ophthalmia neonatorum under the following sub headings: midwives—the medical profession—health officers—the public—committee on the prevention of blindness—recommendations—legislation, and in the Appendix gives 'Care that should be given the child at birth to prevent ophthalmia neonatorum' and 'What must be done when inflammation of the eyes appears.'"

The secretary of the committee has delivered several lectures with lantern slides on the subject of ophthalmia neonatorum.

Through an appropriation of $5,000 from the Sage Fund the committee is enabled to continue its work for the coming year.

Virginia—No replies to any of the circular letters, but the University of Virginia has announced a summer course of six weeks in preventive medicine which should include ophthalmia neonatorum. The course is especially arranged for health officers, medical inspectors and similar public officers. A course of lectures will be given also during the year on selected topics of public health.

Negative

IX. Have You Any Suggestions to Offer the Committee That May Be Helpful in Securing Control of This Disease?

Connecticut—Dr. H. S. Miles, Bridgeport: "Every year since the passage of the law I have gone before the nurses in our general hospitals, read the law and dwelt upon the importance of it, and it is a suggestion that I would make that this be done in every hospital where possible?"

District of Columbia—Dr. Wm. C. Woodward: "To determine what is the best solution to be instilled into the infant's eyes."

Idaho—Dr. Hugel, Boise. "Would advise the committee to prepare a lucid and concise statement upon the subject and have it printed in the American Medical Association Journal and other leading journals."

Indiana—Dr. J. N. Hurty, Indianapolis: "Persistent and emphatic agitation of the situation in order to secure results in the future."

Kentucky—Dr. S. G. Dabney, Louisville: "Would appear to me that some good could be accomplished by health authorities calling attention to the prevalence and dangers of this disease through public press. Organized effort on the part of various charity organizations and societies devoted to civic improvement." So long as knowledge remains almost confined to medical profession believes that cases will continue to occur not infrequently.

Maryland—M. L. Price, secretary State Board of Health: Frequent circular letters to physicians and midwives, the registration and requirement of proper educational qualifications for the latter, extending work of state and municipal laboratories, examination of ocular discharges, and providing prophylactic materials free of cost and placing these with present stations for bacteriological outfits.

Dr. Hiram Woods, Baltimore: Lectures of instruction to poor women who employ midwives; circular letter to every medical school in the country, enough to reach every graduate.

Michigan—Dr. J. H. Carstens, Detroit: "It seems to me that all that is really needed is to stir the boards of health up and make them enforce the law."

Montana—Dr. Donald Campbell, Butte: "I have no suggestion to make that could help the committee, except to urge members of our profession to get interested in politics. One good working doctor in the state legislature is worth twenty at home when it comes to getting bills through the house."

Conclusions

The report of the work already done for the control of ophthalmia neonatorum is given somewhat in detail in order that it may be shown that the whole country is in hearty accord with the movement and that the organization for its control has been very largely perfected.

Resolutions, however, mean nothing more than that our profession is prepared to begin active work. All that has been done is to make the preliminary arrangements. It is now time for a forward movement.

Your committee has had neither the authority nor the desire to recommend any special form of prophylactic, nor until the subject is more exactly determined upon is it desirable to do so. While a large number of opinions have been obtained from ophthalmologists and obstetricians relative to the comparative value of the several germicides, no one of them is wholly free from objections. It has been shown, however, by the experience of the late Dr. Snell in the Jessop Hospital at Sheffield that great care in asepsis, in other words a careful sanitary toilet, will prevent infection in a large proportion of cases and if this be supplemented by the judicious use of any of the silver salts chosen, and by prompt treatment when infection occurs, the disasters of the disease will be practically reduced to the vanishing point. In each state is a committee of experienced physicians ready to advise with the Department of Public Health as to methodology and therefore it has been deemed wise to urge that in every state the subject be taken officially under consideration with them.

The attention of the committee has been directed to the fact that in a disproportionately large number of cases reinfections have occurred where prophylaxis has been employed. This differs so widely from careful records obtained from large numbers of cases as to lead to the belief that often the solutions are used in a perfunctory or careless way or are not prepared in a proper manner. When any silver salt is used it should be in fresh solution, unless it be prepared in hermetically sealed and light proof receptacles, and used but once for prophylaxis. The Department of Public Health should make very clear that when the nitrate is employed some reaction follows or the inexperienced may regard the transitory redness and slight gummy secretion as an infection and employ active treatment where none is required, to the detriment of the cornea. If infection occurs its treatment should be immediate and under intelligent medical supervision. Subsequent to prophylaxis the newer and less irritating silver salts are far safer in the hands of the physician who is unused to the treatment of the eyes and it should always be made clear that the treatment of a birth infection of the eyes MUST NEVER BE UNDERTAKEN BY A MIDWIFE OR A NURSE. When inflammation develops a physician should immediately be called. When, too, a prophylactic is freely distributed by a Department of Public Health it should be accompanied by a brief description of the symptoms of the disease and the necessity for prompt treatment and the records of results together with the reactions should be obtained and made a basis for continued protective work on these lines.

To achieve success two things seem to be necessary—publicity and the placing of responsibility. As in the campaign against tuberculosis which is making such wonderful progress the aid of the public is essential. But before the public can be actively interested the conditions must be thoroughly understood. 'It goes without saying," said a great public journal, "that if the conditions of living in the United States are to be improved the facts must first be ascertained." It should be the duty of the local committee in each state to secure the facts concerning ophthalmia neonatorum. The public health authorities are willing to take any action that responsible physicians ask them to take. In some instances laws must be enacted giving authority to the department of public health to insist upon proper reports being promptly filed, but in many states the power of this board is already adequate and in no instance is it desirable to have laws put upon the statute books until they are demanded by a public sentiment that will secure their

enforcement. To create this sentiment is a responsibility placed upon each one of us.

When the mystery of birth infections shall have been removed, when mothers know that their babies may become blind unless suitable precautions are taken, when they learn that destruction of an infant's eye is in almost every instance due to the neglect of right measures on the part of the attendant, no midwife or careless doctor will dare for her or his own sake to risk the criticism or more serious penalty which must be paid for such criminal negligence. It should be the duty of our committee therefore to secure by cooperation with the department of health in every community, or such other method as may be desirable, by the issuance of impersonal descriptive leaflets, by public lectures, by practical exhibits and otherwise, a widespread knowledge concerning ophthalmia neonatorum, its methods of infection, its prevention and the necessity of immediate and proper treatment. With such knowledge, the public will readily and heartily join in any rightly directed movement for its control.

Responsibility must be placed. In some of the cases brought too late for successful treatment to the Massachusetts General Hospital the parents were urged to secure treatment for the child not by the doctor or midwife under whose ministrations the infection had occurred, but by other physicians or friends, the attendant in the case leaving the hopeless infant to his fate. When such cases occur, the facts being authenticated, a midwife should be deprived of her license to practice, or if a doctor, he should be required to make adequate explanation to the board of health. Such people are a menace to the public and unworthy of the profession which they misrepresent.

This placing of responsibility can be secured only by recording the notice of the birth with the properly constituted authority when it occurs, and that this may be effective it is necessary that the registration be made soon after the child is born. The recent English law on this subject is most important. In an enactment of parliament of 1907 providing for the early notification of births it requires that "it shall be the duty of the father of the child if he is actually residing in the house at the time the birth occurs, and of any person in attendance upon the mother, at the time of or within six hours after the birth, to give notice in writing of the birth to the medical officer of health of the district in which the child is born." The notice is given by means of a prepaid letter or postcard, provided by the department of health, within thirty-six hours after the birth of the child. "This is in addition to and not in substitution of the usual statistical report of the birth." If upon such a report a statement be required as to whether or not a prophylactic has been employed against ophthalmia neonatorum it serves as a warning and a record and would enable the department to keep in touch with births in the poorer districts in which often the eyes of the child are lost before the authorities know that an infant has been born.

It is therefore earnestly recommended that the committees which have assumed the responsibility of cooperating with the central committee actively begin an organized movement for the control of ophthalmia neonatorum in their several states or territories. The local conditions relating to the practice of midwifery should be studied, the number and character of the midwives, the number of birth infections of infants' eyes with the results, the legal conditions concerning the practice of midwifery, and the reporting of ophthalmia neonatorum, cooperating with the health department in seeing that births are promptly reported and securing the assistance of the lay public in making widely known the dangers which may menace the eyes of any new-born child.

The vast importance of this work seems to grow even greater as its practical attainment becomes more possible. The movement which had for its end the control of ophthalmia neonatorum in the United States has now grown to be one in which the whole civilized world has joined. The committee of the British Medical Association is working with energy and enthusiasm, but by far the most important action was that taken by the Eleventh International Ophthalmological Congress at the session held at Naples on April 3. At that time and place were gathered ophthalmologists representing all of the civilized nations of the globe. Resolutions were adopted recognizing the importance of ophthalmia neonatorum as a cause of blindness and the practicability of its control was admitted by the appointment of a committee charged with the duty of its consideration. To us this gives an added inspiration and doubtless between the states will be a friendly rivalry to determine to which shall belong the honor of being the first to wipe out a pestilence that has existed from time immemorial.

F. Park Lewis, Chairman.
J. Clifton Edgar.
F. F. Wesbrook.

Report of the Committee on Organization

Dr. J. N. McCormack, Kentucky, Chairman, presented the report of the Committee on Organization, which was referred to the Reference Committee on Reports of Officers:

To the Members of the House of Delegates of the American Medical Association:

Following the Chicago meeting, acting with the Committee of One Hundred and other friendly lay interests, an active campaign was begun which secured an endorsement in the platforms of both the leading political parties of the plan for such a consolidation of all the bureaus and divisions performing public health functions at Washington as would lay the foundation for such a National Health Department as would meet the rapidly growing demands of this country. Under your instructions again, and still acting with the lay interests above mentioned, and having the cordial support of President Roosevelt and members of his official family, a conference was arranged at Washington between the heads of departments, bureaus and other organizations you had indicated, looking to the consolidation above mentioned. After full consideration, an amendment prepared by the Walcott Commission at the request of President Roosevelt, having the consolidation in view, was approved with but two dissenting votes. Later this amendment was agreed to by all interests and placed in the hands of the proper official for presentation to Congress, but it never reached that body, and all the work came to naught, at least for that session. Finding that the opposition to our legislation could be neither placated nor overcome, with the approval of your Committee on Legislation. I left Washington and took up my regular work in the field, and ask to be excused from all further duty there.

During the year, I have made comprehensive itineraries in the states of South Dakota, Colorado, Ohio, Virginia, Kansas and Missouri, speaking two, three and often four times daily to medical and lay audiences, state universities, normal and high schools and similar bodies, and before joint sessions of the legislatures in North Carolina, Indiana, Minnesota, Missouri and Kansas. The character, extent and results of this work have been so faithfully reported in your Journal and those of the state associations that it is only necessary for me to tell you here of the growing interest in the subject of organization, lay quite as much as medical, which I have found in every section of the country visited.

I am constantly impressed with the possibilities of this work before educational bodies and schools, and especially in institutions which are engaged in preparing teachers, editors, lawyers, clergymen and other leaders of public opinion for their life work. The popular distrust of the profession, ordinarily passive but ready to become active and to be utilized by the various quack and other antagonistic interests, can scarcely be overestimated, and probably can never be eradicated from the once infected adult mind. The experience of recent years has convinced me that with the aid of the teachers and schools, an aid which will be ours for the asking anywhere, a generation of voters and legislators can soon be so trained that the vast interests represented by preventive medicine will come to be appreciated as among the most important and cheaply and easily conserved of the nation's resources, the unselfish aims and purposes of the profession will be recognized and constructive statesmanship can be submitted for the time-serving political methods which have so long obtained in our public affairs, local, state and national. For these and other reasons which can not be enlarged on here, I would urge such an alliance between physicians and teachers in every section of the country as will make all that is involved in our work matters of common knowledge. In short, the future, as I see it, was never so full of promise, if the people can be frankly taken into our confidence and more sense and greater dignity can be made to obtain in our relations with the public and public affairs.

I have been especially encouraged during the year because new workers have been induced to enter the field and improve on the methods formerly adopted. Dr. Phillip Mills Jones, in addition to the great work that he has done for the people and profession of California, has successfully invaded adjacent jurisdictions, and it is hoped can devote at least a portion of his time in other states. Mrs. Bartlett Crane, a well-known club woman and civic worker of Michigan, has excited much interest in health reform in some of the cities of New England, Pennsylvania and Florida, and is just concluding a strenuous four weeks' itinerary in Kentucky. Mrs. Crane is the wife of one of our excellent members who is present at this meeting. She has had large experience as a civic worker, is tactful, practical and conservative in her methods, is an

orator who has the power to sway audiences at her will, and is such a natural good woman and wife with it all that, if she can devote one-half of each month to organization affairs, untold good will result.

I have had occasion in other reports to refer to the shrewd and insidious methods of the quack "patent-medicine" and low-grade proprietary people in antagonizing the advance work of the profession. In former years, the cities and towns where I had appointments were usually flooded with circulars making personal attacks on me, the trustees or the Association as a trust. Early this year, correspondence accidentally fell into our hands showing that these interests, recognizing that this desultory warfare had failed, were organizing a far-reaching conspiracy, with unlimited means back of it for a final, concentrated attack on their arch enemy, the one man who has done more than all others to expose their nefarious impositions on the profession and people, our friend, Dr. Simmons. They reasoned, wisely and truly, that if they could discredit and break him down no one succeeding him would ever be likely to make such a fight as he has done. With the foundation of this conspiracy, the distribution of literature at my meetings was discontinued and was only taken up again within the past month, when it became evident to all that the attack on Dr. Simmons had only rallied his friends the closer around him, making us like him the better for the class of enemies he has made. By reason of our intimate official and personal relations for eight years, I know this man as no other member can. It is not necessary for me to tell you that he is the greatest of living American editors. You know that. It is not necessary that I tell you that he is true to the core and has never had a thought, sleeping or waking, in all these years which was not full of loyalty to this Association and its vast interests. You know that. That he is worthy of our confidence as an officer and leader. You know all that. But I do ask you, just as he has emerged from an ordeal which has tried his heart, as it would have tried yours or mine, that you and each of you during this meeting give him such assurance of personal esteem as will give him nerve for the battles in which, God sparing his useful life, he is yet to lead us.

Report of the Committee on Scientific Research

The report of the Committee on Scientific Research was called for, and, in the absence of the chairman of that committee, was passed. The report as submitted by the committee follows:

To the Members of the House of Delegates of the American Medical Association:

On behalf of the Committee on Scientific Research, I would report that three grants of $200 each have been paid during the past year: One to Dr. Isabel Herb of Chicago for a contribution entitled "A Study of the Etiology of Mumps;" a second to Dr. H. T. Ricketts of Chicago for a study entitled "An Investigation of the Identity of the Rocky Mountain Fever of Idaho with that found in Montana;" and a third to Dr. R. M. Pearce of New York for two papers entitled "A Study of the Elimination of Inorganic Salts in a Case of Chronic Universal Edema of Unknown Etiology with Apparent Recovery," and "A Comparative Study of the Physical Changes in the Blood in Relation to Opsonic and Phagocytic Indices and Cell Content Under Normal Conditions."

In addition to these a grant of $200 was allowed Drs. D. J. McCarthy and M. K. Myers of Philadelphia for "An Experimental Study of Cerebral Thrombosis." A preliminary report of this work was read at the last meeting of the Association, but it has not been completed and the grant is, therefore, continued until final publication is made.

A grant was made to Dr. Carl Voegtlin of Baltimore for a study by himself and Dr. W. G. MacCallum "On the Relation of the Parathyroid to Calcium Metabolism and the Nature of Tetany." By some misunderstanding, this paper was published in the *Journal of Medical Research*, and was not, therefore, according to our rules, entitled to the grant from the Association. This work, however, was done under the impression that a grant would be given, and the committee would recommend that the grant be allowed in this instance. Hereafter, a form will be sent to all those asking for grants, which will clearly specify the rules under which grants are made.

For the year 1909 grants have been allowed as follows: Dr. Isabel Herb of Chicago, $200; Dr. Holmes C. Jackson of Albany, N. Y., $100; Dr. George B. Webb of Colorado Springs, $100; Dr. H. T. Ricketts of Chicago, $200; Dr. R. M. Pearce of New York, $200; Dr. Carl Voegtlin of Baltimore, $200; Dr. D. J. McCarthy and Dr. M. K. Myers, $200 (continued). A grant of $50 was made to Mr. H. T. Glenn of Chicago for a piece of work on "The Comparative Disinfective Power of Chinosol, Carbolic Acid and Mercuric Chlorid." The results of this work have been used by the Council on Pharmacy and Chemistry of the Association.

Your committee has continued in its former policy of making grants to certain individuals and repeating these when the quality of the work has been such that continued support has been desirable. So many requests have been made by individuals worthy of support that it has not been necessary to advertise the existence of these grants as was done in the beginning. The amount allowed by the Association now barely covers the grants that have been made on solicitation of laboratory workers. Any advertisement would probably bring such a number of requests that the resources of the committee would be exhausted without satisfying all those who would make application.

We are fully convinced that the amount expended by the Association for the grants of the Committee on Scientific Research has been usefully employed, and that an increase of the yearly appropriation to $1,000 would be judicious if this sum can be spared for the purpose.

Alfred Stengel, Chairman.

Report of the Board of Public Instruction on Medical Subjects

Dr. F. F. Simpson, Chairman, presented the report of the Board of Public Instruction on Medical Subjects, which was referred to the Board of Trustees.

To the Members of the House of Delegates of the American Medical Association:

In the inauguration of a plan of work which must ultimately, if successful, become very comprehensive, a primary experimental stage is inevitable. The Board of Public Instruction has passed through such a period during the last year, and several avenues which we hoped to employ for purposes of publicity have proved to be unavailable because of limitations which the Board could not accept. The various members of the Board, particularly the former secretary, Dr. Goepp, have interviewed many of the leading editors and managers of newspapers and popular journals. Very few are willing to accept matter without their editorial revision, which in many instances would tend to impart to the article a character more or less sensational. Again we find that each periodical insists on having the exclusive right of publication. At this stage of the work this is manifestly impossible, for it would require a bureau of a magnitude far beyond the possibilities of an available appropriation to furnish indiscriminately separate articles for the large number of papers that might require them. For the present, therefore, it is the plan of your Board to limit the work to a few subjects which have been carefully chosen. They are as follows: typhoid fever, diphtheria, variola, dysentery and gastroenteritis of infants (cholera infantum), cancer, ophthalmia neonatorum, malaria, meningitis, tetanus, rabies, cholera Asiatica, and yellow fever. These subjects have been chosen chiefly because they belong to the general infectious diseases which are, with one or two exceptions, more or less prevalent throughout the United States. While this series is in preparation, any subject which appears to be of more urgent importance may take precedence. The more pressing matters must have first attention. The limitations of our appropriation render it impossible to make the scope more comprehensive at present. In our initial work a large appropriation has not been essential, and we realize that with the constant demands on your treasury, your Board of Trustees has been very generous. Later, we hope within the present year, a point will be reached when a larger appropriation will be essential if the work is to be properly developed. As our material increases and a sufficient stock is in hand for constant draft by a newspaper agency syndicate, an appropriation sufficient to cover this outlay will be necessary. One of the largest newspaper syndicates has offered to distribute to 1,000 newspapers over the country one column weekly for $1,800 a year. This appears to be a liberal rate, and we trust that we may be able, through a larger appropriation, to avail ourselves of this means of placing before the public articles of educational value. It is possible to secure an even better contract than this when the character of our work is recognized.

At first it was thought that many of the prominent members of the American Medical Association could be drafted for these popular articles, but the strenuous life of the average physician is such as to make it impossible for him to be an

active contributor. Besides it is difficult for the average medical writer to adapt his style to lay readers. For this reason your Board has adopted the policy of having the literature on each subject revised by an expert in the Surgeon-General's Library, and from this material a popular article is constructed by a writer versed in medical matters and adapted by a special literary training for putting it in a popular and attractive form. The Board feels that it has been particularly fortunate in securing the cooperation of Dr. Pfender in the collection of the literature, and of Mrs. Howard for editorial supervision. The latter has had a long training both in popular and medical writing, and has been until recently assistant editor of a medical weekly, and is, therefore, unusually well adapted for this particular work.

By resolution of the Board of Public Instruction, one representative from each state in the Union has been invited to cooperate with us as an Auxiliary Board. Each member is expected to keep in touch with matters requiring publicity, and to supervise in a general way the inauguration of publicity schemes in his own territory. Each article as completed will be put in pamphlet form and kept in stock in the Bureau of Public Instruction at the American Medical Association buildings in Chicago, and will be subject as necessary to draft by physicians all over the country. For instance, in the event of a local epidemic of typhoid fever or other infectious disease, these pamphlets may be at once dispatched to those districts and placed, through physicians and other channels of distribution, in the hands of the people. It is hoped that the Auxiliary Board may be of material assistance to the central Board of Public Instruction in indicating lines of work especially adapted for each district. This Board consists of the following members:

Drs. W. H. Sanders, Alabama; C. C. Stephenson, Arkansas; Philip Mills Jones, California; Melville Black, Colorado; Joseph H. Townsend, Connecticut; P. W. Tomlinson, Delaware; Charles W. Richardson, District of Columbia; J. Harvey Durkee, Florida; Floyd W. McRae, Georgia; J. M. Taylor, Idaho; Carl E. Black, Illinois; J. N. Hurty, Indiana; E. L. Stevens, Iowa; L. H. Munn, Kansas; George P. Sprague, Kentucky; Oscar Dowling, Louisiana; Louis P. Hamburger, Maryland; Benjamin R. Schenck, Michigan; Arthur Sweeney, Minnesota; P. W. Rowland, Mississippi; Walter B. Dorsett, Missouri; Donald Campbell, Montana; H. W. Orr, Nebraska; Irving A. Watson, New Hampshire; Alex. Marcy, New Jersey; Frank Van Fleet, New York; Albert Anderson, North Carolina; J. H. J. Upham, Ohio; A. K. West, Oklahoma; R. C. Coffey, Oregon; Charles H. Miner, Pennsylvania; T. P. Whaley, South Carolina; R. D. Alway, South Dakota; A. B. Cooke, Tennessee; David E. Fly, Texas; H. D. Niles, Utah; E. G. Williams, Virginia; Park Weed Willis, Washington; W. T. Sarles, Wisconsin.

This list is complete with the exception of a few states.

Cooperation of the state societies will also be essential to the proper execution of the plans of the Board of Public Instruction, for the problems of each state have more or less individual peculiarities which can be met only by these associations. Thus, the lecture courses which are being inaugurated in several states and cities can best be conducted by state and county societies. It is gratifying to note that already committees have been formed in various parts of the United States for this purpose. We anticipate that during the coming year further additions will be made to this list, and that a widespread movement may be inaugurated for the popularization of many subjects suitable for the education of the laity in matters pertaining to general health.

As noted in our previous report, all articles compiled by the Board of Public Instruction will appear as unsigned documents emanating from the authorized body of the American Medical Association.

Your Board is under obligations to Dr. Ferd C. Valentine for his excellent article entitled "The Boy's Venereal Peril," which has been in extensive demand and will now appear as a pamphlet authorized by this Board.

It is our fixed policy to avoid all controversial questions, and to publish matters on which there is a general consensus of opinion among the well-informed members of our profession. All therapeutic questions must be excluded from these articles, for the treatment of the patient belongs to the physician. The function of this Board is to assist the physician, by rendering more intelligible to the layman the general principles underlying the cause and prevention of disease.

In the event of the employment of a newspaper syndicate for distribution purposes, each article will be copyrighted, thus preventing editorial alterations after it leaves the Board of Public Instruction.

Your Board believes that gradually a successful policy may be evolved which will carry out the intent of the House of Delegates, but experience has taught that a scheme which has such a broad scope must be developed slowly if it is to be most successful.

Your Board has sustained during the year a serious loss in the death of Dr. Harrington. His connection with the Massachusetts State Board of Health and his experience in questions of public health rendered him a most valuable member, and we are indebted to him for many suggestions in the organization and lines this work shall take.

Respectfully submitted,

F. F. Simpson,
Frank Billings,
L. S. McMurtry,
Howard A. Kelly,
George W. Crile,
Myles Standish,
John G. Clark, Chairman.

Report of the Committee on Nomenclature and Classification of Diseases

The report of the Committee on Nomenclature and Classification of Diseases was called for, and, in the absence of the chairman, was passed. The report as submitted by the committee follows:

To the Members of the House of Delegates of the American Medical Association:

Your Committee on Nomenclature and Classification of Diseases have the honor to present the following report of the work done by them, in collaboration with representatives of the cooperating bodies, since the Chicago meeting of the Association, held in the year 1908:

Soon after that meeting it became apparent that an exigency not at first known—that of the change of the time of assemblage of the International Commission for the Revision of the International Classification of Causes of Death, from 1910 to 1909—required that your committee should give early attention to the matter of classification, postponing for the time being that of nomenclature. Accordingly due notice was given of a meeting to be held in Philadelphia, beginning on September 24. At that meeting, which occupied two entire days, there were present two members of your committee (Dr. Dorland and the chairman); Dr. Cressy L. Wilbur of Washington, representing the Bureau of the Census; Dr. J. M. Eager of Washington, representing the Public Health and Marine Hospital Service; Dr. M. Howard Fussell of Philadelphia, representing the Section of Medica and Therapeutics of the American Medical Association; Dr. E. E. Montgomery of Philadelphia, representing the Section of Obstetrics and Diseases of Women of the American Medical Association; Dr. Henry W. Cattell of Philadelphia and Dr. Walter McNab of Columbia, Mo., representing the American Academy of Medicine; Dr. Wilmer R. Batt of Harrisburg, Pa., and Dr. William H. Guilfoy of New York, representing the American Public Health Association; Dr. Francis D. Donoghue of Boston, representing the American Association of Medical Examiners; Dr. John M. Swan of Philadelphia, representing the American Society of Tropical Medicine, and Dr. Warren Coleman of New York, representing the Committee on Clinical Records of Bellevue and allied hospitals, New York. These gentlemen were very courteously invited by Dr. Batt to take part in the proceedings of a meeting of the committee of the American Public Health Association, of which he was chairman, to be held in Washington during the following week, and several of them did attend that meeting. Among them was the chairman of your committee. The result of the conferences held in Philadelphia and Washington was the preparation (finally put into shape by Dr. Wilbur) of the following:

Statement of Specific Recommendations of the Committee on Nomenclature, etc., of the American Medical Association, with Special Section Committees and Associated Committees, the Committee of the Vital Statistics Section of the American Public Health Association and Cooperating Federal Services, Relating to the Revision of the International Classification of Causes of Death.

Title.

I. A. Change "Epidemic Diseases" to Infective Diseases.

9. Change title to Diphtheria (including croup). *Note.*—The word "croup" should be disused; with its disappearance the title should become simply diphtheria.

13. Transfer to 105 and 106.

14. Divide title into amœbic dysentery, bacillary dysentery and dysentery (undefined). Change "Chinese dysentery" to Cochin China diarrhœa and transfer to 105 and 106.

15. Make title Plague and add pestis minor, pneumonic plague and septichæmic plague.

19. Change title to Other Infectious Diseases. Add sleeping sickness, hemoglobinuric fever (blackwater fever), yaws, Malta fever, foot and mouth disease, and Madura foot.

20. Include all septichæmia except puerperal and divide into traumatic and other and undefined.

24. Separate actinomycosis and trichinosis.

26. Include under 27.

26-33. The word tuberculous should be restricted to the specific disease tuberculosis, and the word tubercular should be discarded in this connection.

31. Change title to Tuberculous Abscess.

35. Transfer "Lymphatism" to 55. Drop "Scrofula" as a title and compile under 33.

26-35. Proposed rearrangement of tuberculosis:

New Titles.	Include Old Titles.
Total Tuberculosis.	Tuberculosis (all forms), "scrofula." Hæmorrhage of lungs.
Tuberculosis of Lungs.	Tuberculosis of lungs (27). Tuberculosis of larynx (26). Hæmorrhage of lungs (part of 99).
Acute miliary tuberculosis	General tuberculosis (34).
Tuberculous Meningitis.	Tuberculosis of meninges (28).
Abdominal Tuberculosis.	Abdominal tuberculosis (29). Pott's disease (30).
Tuberculosis of Joints, Glands, Skin, Etc.	Cold abscess, "abscess by congestion" (31). White swelling (32). Tuberculosis of other organs (33). "Scrofula" (35).

39-44. The line of demarcation between a cancer of the face (44) and a cancer of the mouth (39) should be taken as at the junction of the skin and mucous membrane.

39-45. In reporting cancer the point where the growth originated, or the primary site, should be given for purposes of classification.

39-46. Specify, if possible, the variety of neoplasm. All neoplasms, of whatever part of the body, should be placed together (not necessarily under a single title). Proposed rearrangement of neoplasms: New growths (malignant)—Carcinoma, Sarcoma, "Cancer" and malignant diseases not otherwise defined. New growths (nonmalignant or undefined)—Uterine Tumor, Ovarian Tumor, "Tumor" and other nonmalignant new growths not otherwise defined.

50. Transfer diabetes insipidus to 121.

51. Transfer exophthalmic goitre to 89 (new grouping thereunder). Change "Exophthalmia" to exophthalmos and transfer to 75.

52. Transfer title to 89 (new grouping thereunder).

53-54. Combine titles, perhaps as Diseases of the Blood. Include infantile pseudoleuchæmia.

53. Transfer Hodgkin's disease to 84.

55. Add dystrophia genitalis (Rummo's disease).

59. Add lathyrism and tobacco poisoning.

61a. Transfer to General (infective) Diseases. Definition and distinction from other forms (a committee on definitions provided for).

PROPOSED LIST OF UNDESIRABLE TERMS

NOTE.—As a result of the conferences between the General Committee of the American Medical Association and other committees, etc., it was agreed:

"That practical suggestions be framed relative to the reporting of causes of death and of sickness by physicians, and that a list of the most undesirable terms frequently employed be brought to their attention with the recommendation that they be disused."

The following terms are suggested as properly belonging to such a list, and, if approved by the General Committee, they can then be submitted to the other committees interested so that a list of undesirable terms can be distributed to the physicians of the country with the full approval of their national organizations. Other undesirable terms will probably occur.

Undesirable Term	*Reason Why Undesirable*
Abscess.	The location of the abscess should always be stated, and its nature, if known.
Accident, Injury, violence. (*unqualified.*)	In all deaths resulting from violence the physician or coroner should see that the means of death, e. g., railway collision, gunshot, drowning, poison (name of poison), etc., is clearly indicated, and also whether the death was due to accident, suicide, or homicide, if possible to ascertain.
Atrophy, Debility, Decline, Inanition, Weakness, and other vague terms.	If dependent on a definite cause, the cause should be stated, or if the cause can not be ascertained, the words "cause unknown" should be added so that it will be known that the deaths should not be properly charged to tuberculosis or other disease resulting in debility, etc.
Congestion.	This word is not used in the London Nomenclature except in connection with choroid, kidney, lung, optic disc, and spleen. Of these only "congestion of kidneys" and "congestion of lungs" are frequently found on certificates of death. For the first, "656. Congestion [of kidney] (in diseases of heart and lungs)," the disease of the heart or of the lungs to which the congestion of the kidneys was secondary need alone be named; so also for "410. *Congestion [of the lungs]." But in practice "congestion of lungs" is frequently used to designate lobar or bronchopneumonia, acute bronchitis, etc., or it may be equivalent to pulmonary apoplexy. All "congestions," and the old "congestive chills," etc., are undesirable because of their indefinite use. "Congestion of bowels" is a not infrequent return.
Convulsions.	"It is hoped [but, apparently, in vain] that this indefinite term will henceforth be restricted to those cases in which the true cause of that symptom cannot be ascertained. At present more than eleven per cent. of the total deaths of infants under one year old are referred to 'convulsions' merely."—Reg.-Gen.
Croup.	Dropped in third edition (1896) of London Nomenclature. Note in fourth edition (1906) says: "The use of the term 'membranous croup' as a synonym for 'laryngeal diphtheria' should be discontinued." It is even more desirable that the unqualified term "croup" should cease to be so used. Even "spasmodic croup" is no longer given as a synonym of laryngismus stridulus as in the third edition. "Croup" is a most pernicious term from a public health point of view, and should be entirely disused.
Dropsy.	"Dropsy should never be returned as the cause of death without particulars as to its probable origin, e. g., in disease of the heart, liver, kidneys, etc."—Reg.-Gen.
Heart Disease, Organic Heart Trouble, etc. (*nature not stated*).	Vague statements of "heart disease," "heart trouble," etc., should not be given when the precise nature of the affection can be stated. Returns of valvular heart disease, or more specifically, mitral regurgitation, aortic stenosis, etc., are preferable. Always state congenital malformation of heart so that deaths of children from this cause may be separated from those due to acquired heart disease.
Heart Failure, Cardiac weakness, etc.	Such indefinite terms implying mere terminal conditions or symptoms should be entirely discarded in making out certificates of cause of death; if actual disease of the heart was present it should be definitely stated.
Hemorrhage, Hemoptysis.	The cause should be given if known; it is especially important that deaths from tuberculosis of the lungs should not be reported as due merely to "hemorrhage" or "hemorrhage of lungs." But if nothing further than "hemorrhage" can be stated, the organ or part affected should be named.
Hydrocephalus (*unqualified*).	"It is desirable that deaths from hydrocephalus of tuberculous origin should be definitely assigned in the certificate to 'Tuberculous meningitis,' so as to distinguish them from deaths caused by simple inflammation or other disease of the brain or its membranes. 'Congenital hydrocephalus' should always be returned as such."—Reg.-Gen.
Marasmus.	Not in English Nomenclature: "Marasmus, Term no longer used." (Second ed., 1885.) Is compiled under ill-defined by

Undesirable Term.	*Reason Why Undesirable*
	International Classification; also by Registrar-General. Is often used to cover deaths from tuberculosis, syphilis, etc. See letter attached and reply.
Meningitis, Cerebral Meningitis, Cerebrospinal Meningitis.	The specific disease known as "epidemic cerebrospinal meningitis" should be reported as epidemic cerebrospinal meningitis or cerebrospinal fever, whether the particular case happens to be among others in an "epidemic" or is merely sporadic; and it should be reported in no other way. Particularly the qualification "epidemic" should never be omitted, if the first form of return is employed, even if only a single case occurs. On the other hand it will be well to qualify all other forms of meningitis as "simple" or "not epidemic," so that the correct statistics of cerebrospinal fever can be obtained. Tuberculous meningitis should always be definitely stated as such. It is not necessary to mention merely symptomatic meningitis at all.
Operation, Surgical Operation, Surgical Shock.	The cause for which the operation was undertaken should be given unless the surgeon desires his work to be held primarily responsible for the death.
Paralysis (*unqualified*).	The vague use of this word should be avoided, and the precise form stated, as acute ascending paralysis, paralysis agitans, bulbar paralysis etc. Write general paralysis of the insane or general paresis in full, not "general paralysis" or "paresis." Distinguish paraplegia and hemiplegia, and in the latter, when the condition is a symptom or sequel of apoplexy or cerebral hemorrhage, report the death as due to cerebral hemorrhage.
Peritonitis (*unqualified*).	"Whenever this condition occurs—either as a consequence of hernia, perforating ulcer of the stomach or bowel, appendicitis, or metritis (puerperal or otherwise) or else as an extension of morbid processes from other organs, the fact should be mentioned in the certficate. At present far less than half of the deaths originally returned as from 'peritonitis' are found on inquiry to be instances of the idiopathic form of that disease."—Reg.-Gen. Traumatic peritonitis should specify nature of violence.
Pneumonia (*unqualified*).	Many deaths returned from "pneumonia" are in reality due to bronchopneumonia, a distinct title of the International Classification. Hence it is desirable that deaths should be definitely specified as due to lobar pneumonia or to bronchopneumonia.
Pyemia, Septicemia.	If due to childbirth or abortion always write puerperal pyemia, puerperal septicemia, etc. If traumatic, state means of injury and whether accidental, suicidal, or homicidal.
Tabes mesenterica.	Dropped in the second edition, English Nomenclature. "The use of this term to describe tuberculous disease of the peritoneum or intestines should be discontinued, as it is frequently used to denote various other wasting diseases which are not tuberculous. 'Tuberculous peritonitis' is the better term to employ when the condition is due to tubercle."—Registrar-General's "Suggestions to Medical Practitioners respecting Certificates of Cause of Death."
Tuberculosis (*unqualified*).	The organ or part of the body affected should always be stated, as tuberculosis of lungs, tuberculosis of spine, tuberculous meningitis, etc.
Tumor, Cancer (*unqualified*).	The kind of neoplasm, as carcinoma, sarcoma, fibroma, epithelioma, etc., should always be stated if possible and the organ or part of the body affected (first affected, if known). The word "tumor," without further qualification, is less definite than "cancer," and it should always be stated whether it was a malignant "tumor" or a benign "tumor." "Whenever a tumor is known to be due to Malignant Disease, to Tubercle, or to Syphilis, the fact should be stated in the certificate."—Reg.-Gen.
Typhoid Pneumonia.	"The term 'typhoid pneumonia' should never be employed, as it may mean either enteric fever with pulmonary complications, on the one hand, or pneumonia with so-called typhoid symptoms on the other."—Reg.-Gen.

PROPOSED INCLUSIONS.

Cerebrospinal Fever.—Includes epidemic cerebrospinal meningitis, cerebrospinal meningitis, acute cerebrospinal meningitis, cerebrospinal arachnitis, cerebrospinal arachnoiditis, cerebrospinal inflammation and spotted fever.

Do not include acute meningitis, arachnitis, cerebral meningitis, leptomeningitis, meningeal inflammation, periencephalitis, septic meningitis, spinal meningitis, spinal fever, suppurative meningitis, catarrhal meningitis, cerebrocervical meningitis, chronic cerebrospinal meningitis and other chronic forms, congenital meningitis, congestive meningitis, diffuse meningitis, encephalomeningitis, hydromeningitis, idiopathic meningitis, infantile meningitis, inflammation of meninges, membranous meningitis, meningitis of spinal cord, meningocerebritis, metastatic meningitis, posterior meningitis, pneumococcic meningitis, progressive meningitis, purulent meningitis, Rocky Mountain spotted fever, serous meningitis, simple cerebral meningitis, simple cerebrospinal meningitis, subacute meningitis, or plain meningitis (unqualified). Of course, if a death is specified as due to tuberculous meningitis or any other definite form or as traumatic, following typhoid fever, etc., it would not be included either here or under "simple meningitis."

63. Change title to Other Diseases of the Spinal Cord, Pons and Medulla. Change "syringomyelitis" to syringomyelia. Transfer pseudohypertrophic paralysis and fatty degeneration of muscles to 149.

64. Change title, "Congestion and Hæmorrhage of the Brain," to Cerebral Hemorrhage, Apoplexy.

67. Transfer general alcoholic paralysis to 56. Change title to General Paresis

68. Transfer priapism to 126.

70-71. Transfer these titles to class of Ill-Defined Diseases.

72. Transfer tetanus to General Diseases and distinguish traumatic tetanus.

74. Transfer idiocy and imbecility to 68. Cause of compression of brain should be ascertained; if undefined, transfer to 179. Do not include aural vertigo (76) or neuritis due to alcohol (56). Transfer cretinism to 89. Transfer labioglossolaryngeal and labioglossopharyngeal paralysis to 63.

75. Add atrophy of the optic nerve, panophthalmitis and hæmorrhage into the eye.

78. Transfer infective endocarditis to General (infective) Diseases.

80. Transfer cardialgia to 104.

81. Add endarteritis, rupture of artery (nontraumatic) and erythromelalgia. Add aortic disease and exclude disease of aortic valves.

83. Add aneurysmal varix.

85. Discard title. Transfer hæmorrhages to organ or part affected or, if entirely indefinite, to 179. Transfer hæmophilia and purpura to 55.

86. Discard title. Refer to definite forms or to 179.

87. Change title to Diseases of the Nasal Passages (including the accessory sinuses).

89. Change title, add terms and rearrange as follows: Diseases of the Ductless Glands—(a) Diseases of the thyreoid gland and parathyreoid bodies. Include goiter, myxedema, cretinism and exophthalmic goiter. (b) Diseases of the thymus gland. Include status thymicus, status lymphaticus and thymic asthma. (c) Diseases of the suprarenal capsule. Include Addison's disease.

92-93. Transfer pneumonia to General (infective) Diseases: (a) Bronchopneumonia. (b) Lobar pneumonia. (c) Pneumonia (undefined).

96. Transfer fœtid bronchitis to 91.

99. Transfer "hay fever" to 87. Transfer hæmorrhage of lungs to 27.

100. Add Chiaie teeth (black teeth). Transfer thrush to General (infective) Diseases.

101. Transfer amygdalitis (tonsillitis) to General (infective) Diseases.

102. Classify foreign body in œsophagus under 176.

104. Classify foreign body in stomach under 176.

105-106. Add flagellate diarrhea and psilosis (sprue).

108. Divide title into Hernia and Intestinal Obstruction.

114. Add stenosis of gall bladder, perihepatitis and perforation of gall bladder.

115. Transfer to Diseases of the Ductless Glands.

117. Distinguish: (a) Acute pancreatitis, (b) chronic pancreatitis and (c) other diseases of the pancreas.

118. Should precede 109.

120. Change title to chronic nephritis: (a) Chronic parenchymatous nephritis, (b) chronic interstitial nephritis and (c) chronic nephritis (undefined).

121. Add albumosuria, lithuria, oxaluria, phosphaturia, cystinuria, melanuria, alkaptonuria, hematoporphyrinuria and bacilluria.

126. Add impotence, abscess of penis and ulcer of penis.

128. Do not include puerperal hæmorrhage or hæmorrhage of pregnancy.

130. Add uterine fistula (not urinary, 124; not fæcal, 109). Change "periuterine" to perimetritic. Add atrophy of uterus (nonpuerperal). Do not include pelvic peritonitis (116), subinvolution of uterus (140), or uterine fistula (if urinary, 124); if, fecal, (109).

133. Include diseases of the male breast.

136. Transfer placenta prævia (unavoidable hæmorrhage) and separation of placenta (accidental hæmorrhage) to 135. Change title to Other Complications and Sequelæ of Labor.

137. Transfer title to General Diseases.

140. Abolish title and include terms under 136.

142. Abolish title and transfer terms included to cause or organ or part of body affected. Transfer Raynaud's disease to 81. Transfer dry gangrene to 81. Transfer gangrene of penis to 126.

143. Transfer title to General (infective) Diseases.

144. Transfer suppurative adenitis (bubo) to 84.

145. Transfer elephantiasis to 84. Do not include carbuncle, furunculosis, tropical phagedæna, bedsore, or frostbite (170). Add gangrene of skin.

146. Add chronic hypertrophic pulmonary osteoarthropathy. Transfer to 87: Diseases of accessory sinuses (frontal ethmoidal, sphenoidal, maxillary), sinusitis, empyema of sinuses, nonmalignant new growths of sinuses, parasites of sinuses, and foreign bodies in sinuses. Transfer mastoiditis to 76. Transfer rickets to General Diseases.

149. Add trigger finger, hammer toe and talipes (various forms) not congenital.

150. The word "congenital" should govern assignment to this title regardless of age, provided the death or morbidity was due to *congenital* malformation. Any malformation acquired after birth should not be included. Malformations acquired during fœtal life as a result of antenatal disease should be included under congenital malformations, not under the diseases by which they were caused. Include the entire list of malformations of the London Nomenclature. Add congenital stenosis of aorta, congenital stenosis of intestine and congenital stenosis of pylorus. Add congenital idiocy and congenital imbecility.

152. Add disease of placenta (as affecting infants under three months of age).

153. Abolish title and include under 173.

164-165. Fractures and dislocations should be referred to the cause of injury (in general mortality statistics).

167. Add effects of light, x-rays and radium.

167-169-174. Rearrange.

174. Include all deaths from anæsthetics (gases or vapors) under this title, with subdivisions showing causes for which operations were undertaken. Add poisoning by sewer gas, aniline, cacodyl, sulphurous acid, sulphuretted hydrogen, benzene, carbon disulphide, ether and methyl alcohol fumes (as in shellac vats).

175. Add poisoning by methyl alcohol and ptomain poisoning.

174-175. Include the entire list of poisons, both gases and vapors, of the London Nomenclature (174-175).

176. Deaths from electrical currents (live wires) should be separately stated. Include injuries at birth. Make criminal abortion a separate subdivision of homicide. Make a separate division for wounds in action (battle).

166-176. Combine these titles and rearrange entire class, avoiding cross classification by nature of injury instead of mode of injury.

DRAFT OF PROPOSED ARRANGEMENT OF VIOLENT DEATHS

Class XIII.—Violence

A.—Accidental or undefined.
- Conflagration (and injuries resulting therefrom).
- Burns and scalds (not from conflagration, railroad accidents, or other classified accidents).
- Acute Poisoning (English list)—
  - Poisonous gases and vapors (not conflagration).
- Surgical anæsthetics (details, with cause of operation).
  - Illuminating gas. Other gas poisoning.
  - Other poisons (not gaseous, chronic, or occupational).
  - Food poisons (ptomaines).
- Other poisons listed (including corrosive poisons).
- Industrial Injuries—
  - Machinery in factories, etc. (Nature listed).
  - Elevators.
  - Building operations.
  - Mines and quarries (stated separately as needed).
- Transportation Agencies—
  - Steam railroads.
  - Electric roads (extraurban).
  - Street railways.
  - Automobiles.
  - Aeroplanes, balloons, etc.
  - Other vehicles, horses.
- Electricity (not lightning or otherwise classified).
- Falls.
- Gunshot.
- Drowning.
- Suffocation (not including drowning, conflagration, poisonous gases, or mining accidents).
  - Overlying.
  - Foreign bodies in air passages, etc.
- Injuries at birth.
- Weather, Seismic Agencies—
  - Heat and sunstroke (subdivisions in special tables), heat exhaustion, etc.
  - Cold, frostbite, freezing.
  - Lightning.
  - Cyclone, tornado, earthquake, etc.
- Other and Ill Defined Violence—
  - Starvation, exposure, thirst.
  - Fractures and dislocations (cause not specified).
  - Wound, injury, etc. (cause not specified).
  - Surgical operation (cause not specified), or compile under Class XIV as at present.
  - Other and ill defined violence.

B.—Homicidal.
- Criminal abortion.
- Other homicides.

C.—Suicidal. (Subdivisions by *means* of suicide in special tables.)

D.—Judicial. (To be omitted if not legal executions).

E.—War. (To be omitted except when required. Separate statement of "in action.")

An alternative list should be employed for hospital statistics, in order to present data concerning the nature of the injury. The list given in the London Nomenclature, with the changes hereinafter mentioned, is recommended for the purpose.

As regards the matter of nomenclature proper, which has thus far figured in only an incidental and fragmentary way in this report, the members of your committee understand that the American Medical Association has expected them to deal chiefly with the fourth edition (third revision, published in 1906) of the Nomenclature of Diseases Drawn Up by a Joint Committee Appointed by the Royal College of Physicians of London, which for the sake of convenience is herein referred to as the London Nomenclature. Nevertheless, so far as opportunity has offered, they have studied several other nomenclatures, including the publications of the government medical services and that of the trustees of Bellevue and allied hospitals, of New York.

Though your committee regard the London Nomenclature as in the main an admirable work, they think it has some defects requiring correction, and that certain additions should be made to it. The diseases enumerated in its major list are numbered consecutively from 1 to 1,244. It is evident that such a system of numbering is at once thrown into disorder by any change in the lists, whether by adding or dropping titles or by their transposition; and such changes must be made from time to time in any nomenclature which is to continue to represent medical knowledge and opinion. Some arrangement analogous to the extension system now generally adopted in numbering books in public libraries therefore seems to be desirable. A member of your committee, Dr. Duane, has devised such a scheme, and your committee recommend its adoption so far as may prove practicable—that is, in the case of all diseases the nature of which is known.

According to Dr. Duane's plan all titles would bear a title letter referring to an explanatory list and denoting the general nature of the morbid condition. Thus, a title marked A would always stand for an infective disease; one marked B for a parasitic affection; one marked I for an inflammation, etc. The titles might also bear a species number following the title

letter and indicating the special nature of the morbid condition. Thus, A75 would always denote leprosy, C15 diabetes, D2 lead poisoning, H2 hyperæmia, etc. Titles indicating conditions which, for purpose of either provisional enumeration or permanent classification, are regarded as local would bear a section number preceding the title letter and referring to another explanatory list. Thus, a title beginning with 1 always means a disease of the nerves, one beginning with 10 a disease of the conjunctiva, etc. So also 1A necessarily means an infectious disease of the nerves, and 1A75 leprosy of the nerves. The form 1D means a toxic condition of the nerves and 1D2 lead poisoning of the nerves. The form 10E denotes some diathetic affection of the conjunctiva, 10E26 gout of the conjunctiva, 101 conjunctivitis, 10I1 catarrhal conjunctivitis, etc. Such a scheme is, of course, largely a matter for editorial treatment in the preparation of any publication which the Association may decide to issue with regard to this subject.

Your committee recommend that in all names of diseases involving anatomical terms the nomenclature adopted by the German Anatomical Society, generally known as the *Basel'sche Nomina Anatomica* (*B N A*), be adhered to. While we do not assert that that nomenclature is faultless, we believe that it is far superior to anything of the sort that has been proposed before, and we realize that it is sure to be employed extensively in textbooks of anatomy. It involves the retention of all diphthongs in Latin words, though not in form of ligatures. The London Nomenclature gives the diphthongs in separate letters in its Latin list but as ligatures in its English list. We recommend printing them all in separate letters, but in the English list it seems proper to make a concession to those who look on certain Latin words as "Anglicized"—who, for example, write anemia instead of anæmia and diarrhea instead of diarrhœa. In such words we propose to inclose the first letter of the diphthong in parenthesis marks—thus, an(a)emia and diarrh(o)ea. Adherence to the *Basel'sche Nomina Anatomica* requires also the substitution of thyreoid for thyroid, chorioid for choroid, Falloppian for Fallopian, etc. In the interest of uniformity we recommend that such substitution be made. We also recommend certain spellings which, though now uncommon, have received dictionary recognition in the past and are made prominent in the London Nomenclature, such as leuchæmia and septichæmia instead of lucæmia and septicæmia. We believe that no other spelling is defensible.

We recommend that all Latin adjectives, even those derived from proper names, be written with a small initial letter, e. g., cholera asiatica (not Asiatica), also that the circumflex accent (being a mere schoolboy's aid) be omitted from ablatives of the first declension and genitives of the fourth declension.

We recommend that the word inflammatio occurring under a class heading hinging on the name of an organ or part be omitted whenever an equivalent term ending in itis occurs.

We also recommend the following specific changes:

Pp. 2-3.—Transpose febris enterica and febris typhoides, also enteric fever and typhoid fever, making typhoid fever the recognized name and enteric fever a synonym.
P. 4.—Change parotitis to parotiditis.
Pp. 50-51.—Change myosis to meiosis.
P. 68.—Change eniocularis to uniocularis.
Passim.—Change coartatio to coaretatio.
P. 123.—Change Rigg's to Riggs's.
Passim.—Change læsiones to traumata.
Pp. 128-129.—Change tonsillitis to amygdalitis.
P. 148.—Transpose rectocele and proctocele.
P. 176.—Change morbus Bright to nephritis.
P. 192.—Change preputii to præputii.
P. 222.—Omit obstantia.
Passim.—Change distensio to distentio. Change perineum to perinæum.
P. 238.—Change mammillæ to mamillæ.
P. 242.—Change fracture (sic) non solidata to fractura perstans. Change rachitis to rhachitis.
P. 252.—Change trichinosis to trichiniasis.
P. 270.—Change tinea versicolor to pityriasis versicolor and pediculosis to phtheiriasis.
P. 277.—Change overlaying to overlying.
P. 278.—Change ex tormentorum pilis to sclopeticum.
P. 284.—Omit title 1063.
P. 286.—Change aponeurosim to aponeurosin.
P. 316.—Change ununited to persistent.
P. 320.—Change frænum to frenum.
P. 324.—Change empyemic to empyematous and omit transthoracic.
P. 325.—Add appendicostomy.
P. 330.—Under "removal of whole cervix uteri" omit the inaccurate synonym. Add colpocleisis.
P. 332.—Change pregnant to gravid. Add operation for ectopic gestation.
P. 342.—Change renum to renis.
P. 356.—Change perincalis to perinæalis.
P. 358.—Omit "radius aut."
Pp. 360-361.—Change Gärtner to Gartner.
P. 364.—Change cranium . . . redactum to crania . . . redacta. Change medulla spinalis . . . redacta to medullæ spinales . . . redactæ.
P. 374.—Change venosum to venenosum.
P. 376.—Change Hamburyi to Hanburyi.
P. 385.—Change spirochæta to spirochæta.
P. 391.—Change fly Tsetse to Tsetse fly.

The changes thus far recommended are based on a careful study of all the suggestions received from the cooperating bodies, and they were approved of at a meeting held in New York on April 1, 1909, at which meeting there were present Dr. Wilbur, Dr. Batt, Dr. Cattrell, Dr. Meyer, Dr. Coleman, Dr. Guilfoy and the chairman of your committee. At that meeting it was resolved to recommend the following additional titles:

Paratyphoid (pseudotyphoid) fever.
African tick fever.
Tropical bobo.
Hill diarrhœa.
Epidemic gangrenous proctitis.
Japanese river fever (Shima mushi).
Nasha fever.
Acute febrile jaundice (Weil's disease).
Grandular fever.
Mountain fever.
Rocky Mountain tick fever (black fever, spotted fever of the Rocky Mountains).
Coccidioidal granuloma.
Psittacosis.
Milk sickness (trembles, slows).
Polycythæmia.
Cardiac arrhythmia.
Heart block.
Achylia gastrica.
Asthenic bulbar paralysis.

It is realized by your committee that there will doubtless have to be many more additions as our knowledge advances, especially of names of tropical diseases.

The changes thus far recommended are based on a careful consideration of the London Nomenclature and of the suggestions made by the organizations cooperating with your committee so far as they have been received up to the meeting of April 1, 1909, and all those cooperating bodies had had ample notice that all their suggestions must be in the hands of your committee by that time. We did receive certain suggestions, and we acted on them at that meeting. We have since received several proposed rearrangements of the name of diseases and injuries encountered by specialists, but there is not now sufficient time remaining to enable us to digest them and assimilate them with the work previously done. We can do nothing, therefore, but submit them with this report as "exhibits," remarking that they have our general approval. They are as follows:

Psychiatry.—The report of the committee of the American Psychological Association, prepared by Dr. Adolf Meyer, with the collaboration of Dr. Henry M. Murd and Dr. C. B. Burr—marked Exhibit A.

Stomatology.—The report of the committee of the Section on Stomatology, Dr. George V. I. Brown, chairman—marked Exhibit B.

Laryngology, Otology and Rhinology.—Joint reports of the committees of the Section on Laryngology and Otology, Dr. D. Braden Kyle, chairman, the American Laryngological Association, and the American Triological Society—marked Exhibits C, D and E. In a letter dated April 12, 1909, addressed to the chairman of your committee, Dr. Kyle says: "The report which I submitted to you is the one made by a committee consisting of Dr. James F. McKernon, Dr. A. Coolidge, Jr., and myself as chairman. This committee represents, as I understand it, the Section of Otology and Laryngology of the American Medical Association, the Laryngological Association, and the American Triological Society, as the same committee was appointed by each society. The subdivision of the work was merely made for the convenience of the committee, so that the report as sent to you is the report of the nomenclature of the throat, nose and ear. My committee has to report to the American Laryngological and also the Triological at their annual meeting in June, so we have no right to send that re-

port to you until sanctioned by the council of the society, and therefore this report which you have is really from the Section on Otology and Laryngology of the American Medical Association; but the same report will be made to the other two societies."

Ophthalmology.—A scheme prepared by Dr. Alexander Duane, a member of your committee—marked Exhibit F.

In addition, we submit herewith the revised statistical report employed by the Naval Medical Corps (marked Exhibit G) and galley proofs of the revised Bellevue Hospital Nomenclature of Diseases and Conditions, not yet published in book form (marked Exhibit H).

If the general plan of the London Nomenclature is adhered to, the columns of French and German equivalents being retained, a rather bulky book will have to be published, but it does seem of advantage to retain the Latin and English columns. It will be noticed that the navy list is entirely in Latin, whereas the Bellevue list is almost wholly in English. It seems to us that a book conveniently small and yet comprehensive enough for all ordinary purposes might be made by combining the naval and Bellevue lists, with such modifications as may be found requisite.

To this report will be found appended a proposed list of undesirable terms (sometimes used in death certificates), drawn up by Dr. Wilbur with the approval of the Philadelphia meeting of your committee.

Among the matters with which your committee was charged was that of assisting in making provision for an American delegation to the Paris conference for revising the International Classification of Causes of Death. That matter seems to be in the hands of the United States government, at the invitation of the government of France, and your committee are not aware that any steps have yet been taken by Congress to provide for a delegation.

It will be seen that this second report of your committee is only tentative, for it seems to us that no complete nomenclature and classification of diseases and injuries can properly be prepared until the conclusions arrived at by the Paris conference are published.

The thanks of your committee are due to Dr. Cressy L. Wilbur for continual and most valuable assistance in their work—assistance made all the more efficient by his experience as chief statistician of the Bureau of Census; also to Dr. John M. Swan, of the American Society of Tropical Medicine, for his services as secretary and otherwise at our Philadelphia meeting, and to the Polyclinic Hospital of Philadelphia for providing a room for that meeting.

Respectfully submitted,

FRANK P. FOSTER, Chairman.

DR. ALEXANDER R. CRAIG, Pennsylvania: I move that the reports of the Committee on Scientific Research and the Committee on Nomenclature and Classification of Diseases be accepted as printed, but that the report of the Committee on Scientific Research be referred to the Board of Trustees, inasmuch as it involves the appropriation of money.

Seconded and carried.

Report of the Committee on Patents and Trade-Marks

DR. CHARLES S. BACON, Illinois, Chairman, read the report of the Committee on Patents and Trade-Marks, which was referred to the Reference Committee on Legislation and Political Action.

To the Members of the House of Delegates of the American Medical Association:

Your committee was created at the Chicago meeting by the action of the House of Delegates in adopting the following resolution:—

WHEREAS, The object of the patent laws is to promote progress in science and useful arts; and

WHEREAS, The application of the United States patent law to materia medica inventions and discoveries is a hindrance to progress in therapeutics, because patents on products are allowed, thus creating monopoly and preventing progress and improvement in the art; and

WHEREAS, Foreign countries, including Germany, France, Austria-Hungary, Italy, Japan, Argentina, etc., prohibit the patenting of materia medica products; and

WHEREAS, A patent on a product creates a monopoly not only on the product itself, but on all subsequent improvements in processes for making the same, thereby destroying the stimulus for improvement and discovery through research; and

WHEREAS, The registration of the name of medicines as trade-marks creates and fo[illegible] and fraud, causes confusion in [illegible] enables the manufacturers of no[illegible] commercial business in drugs by misleading advertisements, to the injury of the public health; therefore, be it

Resolved, That a committee of five appointed by the House of Delegates to work with the Council on Pharmacy and Chemistry and committees of other societies created for a like purpose to study the whole question and cooperate with the Committee on Medical Legislation in preparing and securing the enactment of a bill which shall secure such modification of the patent and trade-mark laws as will correct the abuses stated in these resolutions.

The committee has made a study of the work previously done in this line by the American Pharmaceutical Association. It has also investigated the patent and trade-mark laws of the United States and foreign countries and conferred with about fifty of the leading drug manufacturers of this country in regard to the effect of the proposed changes in the laws.

While some manufacturers contest the proposition that a patent on materia medica products is a hindrance to progress, others admit its truth. The chief objection to the proposed limitation of patents to processes of manufacture does not so much involve the patent laws as the general system of jurisprudence. In foreign countries which have only process patents, an alleged infringer is required to prove that he is not using a patented process. The opposite rule of procedure, throwing the burden of proof on the plaintiff, is at the basis of legal practice in this country, and a change in our system is out of the question.

In the event that patents on products, as distinguished from patents on the process by which the products are manufactured, were done away with the difficulties under our system of law of proving affirmatively the use by the alleged infringer of the patented process are so great that the value of process patents would be practically destroyed. The presumption obtains generally under our system that proof of guilt or of the infringement must always be made by the person alleging it, rather than that the accused must first establish his innocence. It is comparatively a simple matter to prove infringement of a mechanical patent, because a machine can be seen, described and its mechanical functions easily understood; but in the case of chemical processes practically the only way of proving the use of any patented process is by the evidence of a man who has actually performed it. The result is that to prove an infringement of a process patent it is usually necessary for the plaintiff either to subsidize some of the alleged infringer's employes, or to put confederates in his factory, neither of which courses is commendable. The result of doing away with product patents would undoubtedly be that manufacturers would preserve their formulas as trade secrets and would not disclose them. This would result in a monopoly not limited by any particular period of time, but which would exist as long as the formula remained undisclosed, and this, of course, would result in all of the disadvantages and dangers consequent upon secret formulas.

We therefore conclude that such a change in the patent laws as suggested in the resolution is impracticable. We believe, however, that it may be possible to improve the situation by certain changes, perhaps such as would be in line with those recently adopted in England, restricting patents to articles manufactured solely or chiefly in the country. We learn that changes in the patent laws in other directions are being considered by other organizations, for example, by the American Bar Association, and we would recommend that the association continue a committee to keep track of legislation on this subject and to cooperate with bodies interested in the improvement of medicine and drug patents.

In regard to the evils arising from the registration of names as trade-marks we have come to the conclusion that these evils are to be remedied by the courts rather than by the enactment of new laws. It is a fundamental proposition that the registration of a trade-mark or name creates no new rights. The property right in a mark, which simply denotes origin, exists just as well when there is no registration of the mark as after such registration is made. Certain rules regarding the registration of names of medicines are definitely established by the courts and by the Commissioner of Patents. The name of a medicine which is the subject of a patent can not be registered as a trade-mark, and neither can a name which is descriptive of the article, its qualities or purposes, or which is false.

Other questions are in a state of great confusion. For example, it is a question whether a manufacturer can be protected on trade-mark principles in the use of a number of names each used to indicate a particular product. Another question that has recently arisen and is most important to us is the right of a manufacturer to give a chemical name to a medicine as the patent or descriptive name and use another more catchy name as a trade-mark. It is very doubtful if this evasion will be upheld by the courts.

In view of the great importance of obtaining judicial opinions on these and other questions arising in the practice of registering trade names of medicines, we recommend that the Committee on Patents and Trade-marks consider the advisa-

bility of trying to secure such opinions, and in the event that such action seems desirable it shall be empowered to proceed by and with the advice and consent of the Trustees.

Respectfully submitted, CHARLES S. BACON, Chairman.
OLIVER T. OSBORNE.
A. BENNETT COOKE.
PHILIP MILLS JONES.
HORATIO C. WOOD, JR.

Report of the Committee on Drug Reform

The report of the Committee on Drug Reform was called for and passed, in the absence of the Chairman, DR. LEWIS S. MCMURTRY, Kentucky.

Report of the Committee on Davis Memorial

DR. HENRY O. MARCY, Massachusetts, Chairman, presented the report of the Committee on Davis Memorial as follows, which was referred to the Reference Committee on Miscellaneous Business:

To the Members of the House of Delegates of the American Medical Association:

This is not a report of progress. When your committee was appointed it was believed by your chairman that it would not be difficult to secure the requisite funds for a suitable memorial to Dr. Nathan S. Davis, the founder of this association. Owing, however, to the disaster at San Francisco it was deemed best to defer temporarily the active solicitation of funds, as everyone so far as possible felt it a duty to alleviate the results of that national calamity. Then soon after came the general financial depression, in which our profession had more than its full share.

Nevertheless, notwithstanding these adverse conditions, your committee has not been inactive. They decided that a minimum sum of twenty-five thousand dollars should be raised, and the representatives of the different states accepted that which seemed to them a just apportionment. It was thought the better way that the state societies under the advice of the state representative of this committee should cooperate, and thus every member of the profession be privileged to contribute in a small way toward this fund.

Through the personal effort of your chairman Massachusetts exceeded her apportionment nearly a half, although until recently for almost a generation the great body of the profession in that state was not in affiliation with the Association. In 1907 the Association was asked to appropriate from its funds five thousand dollars toward this memorial. This was recommended, but owing to legislative delays has not yet come to final consideration. The State of Illinois, and especially the City of Chicago, have promised generous assistance to this memorial in honor of one of her first citizens, whose public service in sanitation and hygiene should be kept in undying remembrance.

Upon the presentation of his last report your chairman regretfully stated that the Memorial Committee refused further active cooperation on the part of the states until the Association itself should give encouragement and support by contributing to the fund. The committee urge that this be done at this meeting, and believe that this is essential for the success of the movement. If such appropriation is made by the Association the representatives of the different states who constitute the committee promise their hearty and active cooperation.

The profession of America owes it to itself that the completion of this memorial be not longer delayed, since for many things it is indebted to Dr. Davis more than to any other member of the medical profession for its present state of advancement, affiliation and good will.

HENRY O. MARCY.

Report of the Committee on the Uniform Regulation of Membership

DR. THOMAS MCDAVITT, Minnesota, Chairman, read the report of the Committee on Uniform Regulation of Membership, which was referred to the Reference Committee on Constitution and By-Laws.

To the Members of the House of Delegates of the American Medical Association:

This committee was appointed at the Chicago Session in 1908 in accordance with a recommendation contained in the report of the General Secretary. After discussing the lack of uniformity in regulation of membership in county and state societies and emphasizing its importance, the General Secretary said: I therefore recommend that this entire matter be referred to a committee of three with instructions to secure data regarding the present provisions in the constitution and by-laws of the various state associations on this point as well as the procedure followed by county and state societies and to report its findings and recommendations to the House of Delegates at the next annual session."

REGULATION OF MEMBERSHIP

On August 7, a letter was sent to the secretary of each state association, asking for information regarding the rules observed by each state association. Reports have been received from the secretaries of all the state associations except Georgia. A tabulation of the questions and answers is appended herewith.

(A) FISCAL YEAR

(1) What is the fiscal year of your state society?

Jan. 1 to Dec. 31.—California, Idaho, Illinois, Indiana, Kansas, Kentucky, Maryland, Michigan, Mississippi, Missouri, Nebraska, New York, Nevada, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Utah, Washington, West Virginia, Wyoming.....22
Feb. 1 to Jan. 31.....0
March 1 to Feb. 28:—Rhode Island.....1
April 1 to March 31:—Alabama, Florida, Tennessee, Minnesota 4
April 15 to April 15:—Massachusetts, Dist. of Columbia 2
May 1 to April 30:—Arkansas, Iowa, Louisiana, Montana, New Hampshire, Texas.....6
June 1 to May 31:—Connecticut, Maine, New Jersey.3
Sept. 1 to Aug. 31:—New Mexico, Pennsylvania....2
Oct. 1 to Sept. 30:—Delaware, Vermont.....2
Dec. 1 to Nov. 30:—North Carolina.....1
Annual Session to annual session:—Arizona, Colorado, Oregon, Virginia, Wisconsin.....5
No report, Georgia.....1

In the great majority of cases in which the state association does not have the fiscal year coinciding with the calendar year, the beginning of the fiscal year is purely accidental, running from the approximate date of the annual meeting or from the first of the month immediately preceding or following it. Under the form of organization which previously existed in many states in which the state society existed only at the time of the annual meeting, there was some reason for such a plan. Under the present organization, with the state society always in existence in the form of county societies, there seems to be no reason why the purely accidental occurrence of the annual session at a certain period of the year should have any bearing or influence on the society's finances. If the fiscal year is changed in all cases to coincide with the calendar year, then the reports of the secretaries, treasurers, boards of trustees, etc., will be for the entire fiscal year immediately preceding the annual session at which the report is made. For instance, if the annual session of the state association is held in April, the reports for the fiscal year will be from January 1 to December 31 for the preceding year, while the three months of the new year will be covered in the report at the next session. The advantages of having the fiscal year and the calendar year coincide are obvious. The natural time to pay dues is the beginning of the new year. Any other time is accidental and artificial. If the fiscal year coincides with the calendar year, membership can be held for the entire calendar year and a certificate of membership issued for the calendar year. In this way, a certificate issued for 1908, for instance, will only be good during that year and will naturally expire with the beginning of 1909. A receipt for 1908 dues will be of no value after January 1, 1909. A member credited with dues for 1909 will be a member in good standing throughout the year and there will never be any doubt regarding the exact duration and expiration of dues, membership, etc.

If the county, state, and American Medical Associations, all adopted the calendar year as the fiscal year, membership would expire simultaneously and there would be no overlapping. As it is, in a society having a fiscal year from May 1 to April 30, its members are eligible to membership in the American Medical Association from January 1 to April 30, but ineligible from May 1 to December 31, unless they pay their dues for the balance of the year. As shown by the table above, there being no uniformity in the different states, memberships are expiring at all times during the year and consequently it is necessary to keep up a continual correspondence regarding this matter. If all memberships expired on December 31, the entire record could be revised as soon after January 1 as possible and this revision would then be good for the year, with the exception of the additions, new members, etc. The ad-

vantages of having the fiscal year coincide with the calendar year are apparent.

(2) Do all your county societies have the same fiscal year? If so, what it it?

States in which the fiscal year of county societies runs from Jan. 1 to Dec. 31:—Alabama, Arizona, Colorado, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Mississippi, Missouri, Nebraska, New Mexico, New York, Nevada, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Washington, West Virginia, Wisconsin.....27
States in which the fiscal year in county societies runs from April 1 to March 31:—Connecticut.....1
States in which the fiscal year in county societies runs from April 15 to April 14:—Massachusetts....1
States in which the fiscal year for county societies runs from June 1 to May 31:—Delaware.....1
States in which the fiscal year for county societies runs from Dec. 1 to Nov. 30:—North Carolina.....1
States in which the fiscal year for county societies runs from session to session of the state association:
Michigan 1
No report:—Georgia 1
No county societies:—Dist. of Columbia, Virginia...2
Not known:—Montana 1
No uniformity in County Societies:—Arkansas, California, Louisiana, Maine, Minnesota, New Hampshire, New Jersey, North Dakota, Oregon, Rhode Island, Tennessee, Vermont, Wyoming.....13

It hardly seems necessary to present any argument for all the county societies in the same state having a uniform fiscal year. In fact, it is difficult to see how membership matters can be regulated without such uniformity. The advantages of uniformity between the county and state societies on this point are equally obvious. As membership in the state society depends on membership in the county society, it is evident that a member is entitled to membership in the state society for exactly the same period of time that he has paid dues and is recognized as a member in good standing in the county society. Here the simplest plan, i. e., coincidence of the fiscal year with the calendar year, is plainly the best.

(3) Do your by-laws contain any provisions regarding the fiscal year of county societies?

In the following eleven state societies, the duration of the fiscal year of county societies is prescribed by the By-laws of the State Association:—Alabama, Colorado, Idaho, Kentucky, Massachusetts, Missouri, Nebraska, New York, North Carolina, South Dakota, Washington 11
In the following thirty-five states there are no provisions on this point:—Arizona, Arkansas, California, Connecticut, Delaware, Florida, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Montana, New Hampshire, New Jersey, New Mexico, Nevada, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, West Virginia, Wisconsin, Wyoming.....35
No report:—Georgia 1
No county societies:—Dist. of Columbia, Virginia....2

(4) Do you think the fiscal year of county and state societies should correspond?

This question was answered in the affirmative by the secretaries of the following twenty-six state associations:—Arkansas, California, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Nebraska, New Hampshire, New York, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, Texas, Utah, Vermont, Washington, West Virginia, Wyoming.....26
The question was answered in the negative by the following nineteen states:—Alabama, Arizona, Colorado, Connecticut, Delaware, Florida, Idaho, Maine, Michigan, Minnesota, Montana, New Jersey, New Mexico, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Wisconsin.....19
No expression:—Massachusetts 1
No report:—Georgia 1
No county societies:—Dist. of Columbia, Virginia..2

(5) What do you consider the best arrangement for the fiscal year so far as the county societies and the state association are concerned?

The replies received on this point were practically unanimous, each secretary stating that he considered the plan followed in his own state to be the best.

(b) DUES

(1) At what time do your by-laws call for the payment of county society dues?

No provision in the by-laws:—California, Illinois, Iowa, Louisiana, Maryland, New Hampshire, North Dakota, Pennsylvania, Rhode Island, Vermont.....10
On Jan. 1:—Arizona, Colorado, Idaho, Indiana, Kansas, Kentucky, Missouri, New Mexico, New York, Nevada, Texas, Wisconsin, Wyoming.....13
April 1:—Maryland, Minnesota, North Carolina, Oklahoma 4
April 15:—Massachusetts, New Jersey.....2
April 30:—Oregon 1
Dec. 1:—Michigan, Washington.....2
Thirty days before annual session:—Arkansas, Maine, Montana, Nebraska, Ohio, South Carolina, South Dakota, Tennessee, Utah.....9
Before annual session:—Delaware, Florida.....2
Before close of annual session:—Alabama.....1
Quarterly:—Connecticut 1
No answer:—West Virginia.....1
No report:—Georgia 1
No county societies:—Dist. of Columbia, Virginia..2

(2) When does the county secretary remit to the state secretary the amount of the state per capita assessment?

January 1:—California, Indiana, Kansas, Kentucky, Maryland, Washington, Wyoming.....7
May 1:—Minnesota, Nebraska, Oklahoma, Texas, West Virginia 5
May 15:—Connecticut, New Jersey.....2
July 1:—Colorado 1
August 1:—Idaho 1
September 1:—Nevada, Pennsylvania.....2
December 31:—Michigan, Missouri.....2
Thirty days before annual session:—Arizona, Iowa, Louisiana, Maine, North Dakota, South Dakota, Tennessee, Utah 8
Before annual session:—Arkansas, Delaware, New Mexico, North Carolina, Oregon, Wisconsin.....6
During annual session:—Alabama.....1
"When they get ready":—Florida, Montana.....2
No report:—Georgia 1
No county societies:—Dist. of Columbia, Virginia..2

In addition, the following replies, impossible to classify, have been received from eight state secretaries.

Illinois:—"County secretaries must remit prior to April 15, next, but the vast majority remit before November 15 of the current year."
Massachusetts:—"The district treasurer remits to the treasurer of the state society." (Massachusetts is organized on the district and not on the county plan.)
New Hampshire:—"Our county societies do not become component societies until May 1, 1909." (New Hampshire has recently established component county societies.)
New York:—"The secretary has nothing to do with dues."
Ohio:—"At his own sweet will. Sometimes, as collected, in groups, or as a whole just before the annual meeting, with scattering eturns throughout the rest of the year."
Rhode Island:—"The state society collects from each individual member and not through the county society."

(3) Does the secretary of each county society remit for the entire society or for each individual member as he pays his dues?

For the entire society:—Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Mississippi, Montana, New Mexico, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Vermont, Wisconsin 30
For individual names as received:—Maryland, Michigan, Minnesota, Missouri, Nebraska, Rhode Island, South Carolina, Washington, Wyoming.....9
No rule on this point:—Massachusetts, New Hampshire 2
Both:—New Jersey, West Virginia.....2
No report:—Georgia 1
No county societies:—Dist. of Columbia, Virginia..2

(4) Do you, as the secretary of the state association, accept payments of the per capita assessment from individual members, or must they come through the county society?

In forty states, the per capita assessment is only accepted through the county society. Those in which this is not the case are:—

From the county treasurer to the state treasurer; New York, Pennsylvania, South Carolina.....3

From each member; Rhode Island.....1

Not yet determined; New Hampshire, Oklahoma.....2

(5) Do you enroll a member when reported by the county secretary regardless of whether or not the per capita assessment is paid for him or do you wait until the individual assessment is paid before enrolling the member?

Members enrolled when reported by county secretary:—Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Idaho, Louisiana, Montana, Oregon, Pennsylvania, Wyoming 12

Members enrolled only when per capita assessment is paid:—Alabama, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, Nevada, North Carolina, North Dakota, Ohio, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, West Virginia, Wisconsin.....31

No report:—Georgia 1

No county societies:—Dist. of Columbia, Virginia..2

No provisions on this point:—Maine, New Hampshire, Oklahoma 3

[Further questions and answers, regarding manner of paying assessments, etc., are omitted, owing to the amount of space required to tabulate the replies.]

SUSPENDED MEMBERS

It is difficult to analyze the answers under this head on account of the confusion existing in the use of the word "suspended." In some state associations, a member delinquent after a certain time is suspended and is no longer considered in good standing or entitled to the privileges of membership, yet he is still regarded as a member and is not dropped or entirely separated from the organization until the expiration of a probationary period. In other state societies there are no provisions for suspension, a member being dropped as soon as he becomes delinquent or as soon as the year for which his dues are paid has expired. In some states suspension simply means arrears in dues, while in others it is equivalent to being dropped from the society. These facts should be kept in mind in the interpretation of the following answers:

(1) Are delinquent members suspended for non-payment of dues, and if so, how far in arrears must they be before being suspended?

State Associations not providing for suspension:—Alabama, Minnesota, Mississippi 3

Suspension on Jan. 1:—Washington, Missouri.....2

Suspension at the end of two months:—Indiana.....1

Suspension at the end of three months (April 1):—Arizona, Kentucky, Oklahoma, Oregon, South Dakota, Texas, Utah, Wyoming.....8

Suspension at the end of four months (May 1):—Illinois, New York, West Virginia.....3

Suspension at the end of five months (June 1):—Kansas, New Jersey.....2

Suspension at the end of six months (July 1):—Colorado 1

Suspension at the end of ten months (November 1):—Michigan, Nevada.....2

Suspension at the end of one year:—Arkansas, Connecticut, Delaware, Idaho, Louisiana, Maryland, New Mexico, Nebraska, North Carolina, South Carolina, Tennessee, Vermont.....12

Suspension at the end of two years:—Rhode Island:—1

Suspension at the end of three years:—Massachusetts, New Hampshire.....2

Suspension after state meeting:—Ohio.....1

Suspension as soon as reported delinquent:—California, Iowa 2

Suspension regulated by county societies:—Florida, North Dakota, Pennsylvania.....3

No county societies:—District of Columbia, Maine, Virginia 3

No report:—Georgia.....1

(2) Is the roll of the state association made up complete each year from the reports of the county secretaries, or is a member once entered carried as such until specifically reported as died, suspended, resigned, dropped, etc?

In thirty-six states the roll is made up each year from the reports received from the county secretaries....36

In the District of Columbia, New Hampshire and Virginia there are no county societies (organization now taking place in New Hampshire).....3

No report:—Georgia.....1

Reports from 8 societies are as follows:—

Illinois: A member once entered is carried until specifically reported on, and if no report is made by the 15th of April next following he automatically stands suspended.

Massachusetts: The roll is made up each year from the report of the secretary of the state society.

New Mexico: Names once reported are carried until reported as dropped, dead, etc.

Oregon: Members are carried until they are dropped by the secretary of the county society.

Pennsylvania: We ask for changes in membership as they occur, but we do not always get what we ask for. We publish a list of the officers and members each March. We get a revised list again in August.

Rhode Island: A member once entered is carried.

Washington: A member once entered is carried until some change is reported, as above.

Wyoming: A member is carried after once reported until reported as dead, etc.

(3) Are all members "not in good standing" regarded as "suspended?"

No provision for suspension:—Alabama, Minnesota, Mississippi, Massachusetts, Washington.....5

The following states answer the above question in the affirmative:—Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Iowa, Kentucky, Missouri, Nebraska, New Hampshire, New Jersey, New York, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Vermont, West Virginia, Wisconsin, Wyoming.....32

The following states answer the above question in the negative:—Louisiana, New Mexico, Rhode Island, Utah 4

The report from Kansas says: Suspended in the county society. Report from Maryland: Suspended at the end of one year. Report from Michigan: Suspended on October 1.....3

No county societies:—District of Columbia, Maine, Virginia 3

No report:—Georgia 1

(8) Are members notified when dropped?

Yes. California, Connecticut, Delaware, Idaho, Kansas, Kentucky, Louisiana, Maryland, Michigan, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, Nevada, Ohio, Rhode Island, Texas, Vermont, Wyoming 21

No. Arizona, Arkansas, Colorado, Illinois, Missouri, North Carolina, Oklahoma, South Dakota, Tennessee, Utah, West Virginia, Wisconsin.....12

Notified by county secretary:—Indiana, Iowa, South Carolina 3

By publication in the state journal:—Pennsylvania..1

Depends on the county secretary:—Florida, Oregon..2

No suspended members:—Minnesota, Mississippi....2

No county societies:—District of Columbia, Maine, Virginia 3

No report:—Georgia 1

The following replies could not be tabulated:—

Massachusetts: "Members dropped after three years delinquency."

North Dakota: "I suspect that a good secretary uses that lever in trying to collect from a slow or delinquent member."

Washington: "County secretary is notified."

(D) BEST METHOD OF HANDLING MEMBERSHIP MATTERS

This question was intended to call forth suggestions from the state secretaries regarding the best method of regulating memberships as far as the relation between county and state societies, reports of secretaries, forms and blanks used, etc., were concerned. The following answers are selected from the replies received—

Connecticut: Members should be enrolled each year from the reports of the county secretary. If in arrears for more than one year, they should be dropped and admission secured only by re-election.

Michigan: Card system. Never destroy a card. July 1, send county secretary list of all unpaid members for him to check up errors. Request him to push collections, September 1, individual letter to delinquents, urging them to keep up membership and pay through the county secretary. November 1, second individual letter, saying that dues have not been re-

ceived and member will be dropped with notice to the American Medical Association to that effect if his dues are not received by November 30

Minnesota. Have the fiscal year of all county societies the same Membership only good until the end of the fiscal year The same with the state organization There should be no elasticity in this matter It is this acceptance of the procrastinating methods of many doctors that has made the financial ends so hard to manage

New York It would seem that the carelessness of members in the conduct of their private business affairs has been carried into the conduct of the medical society, both county and state The sooner a return is made to business principles the better The quicker the custom of unbusinesslike methods in the conduct of medical societies is abandoned the better it will be for all concerned The action of the by laws should be automatic It should not be left to an individual or to a committee to say to this or that member "You are suspended," or to wink at the fact that a member has not paid his dues The card index system is certainly the best In this office only one list is kept. Three boxes, or one box divided into three parts for a small society, can be used Make a list of all members on cards, putting on each card the data necessary When a member is suspended take his card out of the membership box and put it in the suspended box When dropped transfer it to the delinquent box If he at any time pays his dues, and is reinstated the card can then be transferred to the active list If he dies the card can be put in the dead box or destroyed, although it is not a good plan to destroy any society records

Oregon· A fiscal year from January 1 to January 1 in county societies The state association as at present (The fiscal year in Oregon is from annual session to annual session generally July 1 to July 1) Dues to be paid to the end of each year Suspension of members not paying before the meeting of the state association Automatic reinstatement if dues are paid up before the following January Newly elected officers to take office January 1, no matter when the annual meeting occurs

Pennsylvania Members should be suspended automatically when six months in arrears Never "carry" a member under any circumstances If he is not able to pay his dues, pay them for him by resolution The state society should have nothing to do with the collection [In a personal letter, Dr. Stevens, the state secretary, outlines the history of the present methods in Pennsylvania, at length]

Washington Monthly reports from county societies Use of card index by county and state secretaries Cards to show all information regarding each member, and also carry any account of dues paid

A careful examination of the above tabulation will show that the greatest difficulties in the way of uniform regulation of membership are

(1) Lack of uniformity regarding fiscal year and termination of membership

(2) Lack of definite specific regulations regarding time when dues must be paid and when members are suspended for nonpayment

(3) Lack of sufficiently comprehensive system adaptable to conditions in different parts of the country by which county secretaries can report changes in membership to state secretaries easily and accurately, thus keeping the state secretaries informed regarding the status of membership in each county

It is evident that if the by-laws of this Association are to be enforced, and if the membership in the American Medical Association is only to be held by members in good standing of county and state societies, a simple, easily operated and effective system for the transmission of such official information regarding membership must be established The present lack of uniformity and system in the regulation of membership is costing the organized profession of the country thousands of dollars each year in the form of postage, clerk hire, stenographers' salaries, etc, necessary to carry on an enormous amount of correspondence regarding details which should not be necessary were an automatic system put in operation In addition to the unnecessary expense, there is also a much larger loss on account of members who are dropped or suspended, or who relinquish their membership owing to misunderstanding regarding the provisions regarding dues, good standing, etc If a general system were adopted to which all state and county societies, as well as the American Medical Association could conform, an enormous amount of time and labor could be saved each year and a large number of members retained who are now lost

In a recent number of the *Outlook* appeared an article on the business methods of one of the leading railroad magnates of the United States, in which, as one of the reasons for his success, emphasis was laid on his careful attention to details and his ability to save money and labor by systematic management Describing the reorganization of the Union Pacific Railroad, the writer said that when Mr E J Harriman took charge of the road there were twenty-two divisions, each one of which had its own system of blanks, forms, reports, etc, and that one of the first acts of the new president was to call for copies of every blank used in every division of the road. When these were all received they filled a large room, showing an enormous number of different blanks of all different sizes and varieties, many of them designed for the same purpose. By unifying and standardizing the stationary and forms used in the twenty two different divisions, by having all printed matter made in 'stock size' (that is, sizes which could be cut from the commercial sizes of paper, cardboard, etc, without waste), and by systematizing the manner of sending in and tabulating reports, it was found that the saving effected was more than sufficient to meet the entire expenses of the stationary department If the adoption of standard and uniform blanks, forms and methods by the Union Pacific Railroad with twenty two divisions was of sufficient importance to merit the personal attention of the president, surely the uniform and mechanical administration of membership matters on the part of the American Medical Association, with 50 constituent associations and 1 996 component county societies, comprising 70 000 members, is of sufficient importance to merit the most careful consideration of its executive officers We must either continue in the present unsystematic, unbusinesslike, wasteful method of regulating and recording membership matters in county, state and national organizations or we must devise a satisfactory plan which will be capable of general adoption by all the county and state societies, and by which membership matters can be handled quickly, mechanically and accurately.

The printing plant of the American Medical Association can produce all blanks and forms necessary for county and state societies at a much lower cost than the work can possibly be done for elsewhere The printed matter can be made in uniform and standard sizes so that it can be cut without waste, and the expense thereby diminished Forms and blanks, once agreed upon, can be stereotyped and printed in large quantities at a very low cost Report blanks, membership certificates, notification cards, etc, can be put up in sets for county societies of different sizes and for state associations, and can be supplied regularly All supplies needed for all county and state societies can be supplied from a central bureau at a minimum expense The work of county and state secretaries can be greatly facilitated and the value of these officers to their respective organizations greatly increased, not only without increased work on their part, but with a decided reduction of the amount of work required

Your committee therefore makes the following recommendations:—

(1) That all state associations be requested to make their fiscal year conform to the calendar year and to request their component county societies to adopt the same rule

(2) Your committee further recommends that this committee be continued, that it be increased by the addition of four state secretaries and that it be instructed to draft uniform by-laws for the regulation of membership for state and county societies, as well as to devise a system of necessary blanks, forms, etc, which will be applicable for general use and which can be recommended to the House of Delegates to state societies for adoption

MEMBERSHIP QUALIFICATIONS

In addition to the question of the mechanical regulation of membership, which the committee considered the main question submitted to it, it has also been suggested that this committee take up the question of the requirements for membership so far as personal qualifications are concerned It is evident that a lack of harmony on this subject as well exists among the various county and state organizations No effort has been made to secure data on this point other than to tabulate the constitutional provisions of the various state associations as shown by the last copy of the constitution and by laws on file at the General Secretary's office A summary of the provisions in the various states follows:—

AMERICAN MEDICAL ASSOCIATION· Requirements for membership in the American Medical Association are· (1) Membership in good standing of the constituent association of the state in which the applicant resides (2) Written application for membership on the prescribed form. (3) Payment of the annual dues.

ALABAMA: Graduates of reputable medical colleges, holders of certificates of qualification granted by the State Board of Examiners or by a county board of examiners are eligible to membership in county medical societies.

ARIZONA: Requirements those of the standard constitution and by-laws for state societies.

ARKANSAS: Every reputable physician, a graduate of a regular medical college, recognized by the Federation of Medical Colleges.

CALIFORNIA: Standard constitution and by-laws.

COLORADO: Standard constitution and by-laws.

CONNECTICUT: Members of county medical societies are members of the state association. Provision regarding membership in county societies are those of the standard constitution and by-laws.

DELAWARE:

DISTRICT OF COLUMBIA: Legally qualified, regular practitioners of medicine residing in the District and engaged in no other occupation.

FLORIDA: Every reputable, white, legally registered physician practicing non-sectarian medicine is entitled to membership.

GEORGIA: Every reputable and legally registered white physician who does not practice or claim to practice nor lend his support to any exclusive system of medicine shall be eligible to membership.

HAWAII: Regular practitioners in good standing who hold a license to practice medicine under the laws of the territory.

IDAHO: Standard constitution and by-laws.

ILLINOIS: Standard constitution and by-laws.

INDIANA: Standard constitution and by-laws.

IOWA: Standard constitution and by-laws.

KANSAS: Standard constitution and by-laws.

KENTUCKY: Standard constitution and by-laws.

LOUISIANA: Standard constitution and by-laws.

MAINE:

MARYLAND:

MASSACHUSETTS: Applicants must be over 21, of sound mind and good moral character, must possess a good English education, hold a diploma from a medical school recognized by the council, satisfy the censors that they do not practice any exclusive system of medicine and that they possess such other qualifications as the society shall deem advisable.

MICHIGAN: Every reputable and legally registered physician who is practicing or who will agree in writing over his own signature to practice non-sectarian medicine only and who will sever all connection with sectarian colleges, societies, institutions, etc., shall be eligible to membership.

MINNESOTA: Standard constitution and by-laws.

MISSISSIPPI: Standard constitution and by-laws.

MISSOURI: Standard constitution and by-laws.

MONTANA: Standard constitution and by-laws.

NEBRASKA: Every reputable and legally registered physician, a graduate of a college which at the time of his graduation was considered in good standing, etc., provided that licentiates admitted under the laws of 1881 and registered as regular physicians and who have continuously practiced regular medicine in Nebraska may be admitted to membership.

NEVADA: Graduates of a recognized medical college in good moral and professional standing proposed in writing at a regular meeting and elected by a three-fourths vote on recommendation of the board of censors.

NEW JERSEY: Standard constitution and by-laws.

NEW HAMPSHIRE: Standard constitution and by-laws.

NEW MEXICO: Standard constitution and by-laws.

NEW YORK: Membership in the state society includes all members of all chartered county societies. The only provisions found in the by-laws of the state association regarding membership in county societies is Sec. 2, Chap. 9, which provides that full and ample opportunity shall be given every reputable physician to become a member of the society in the county in which he resides, and Sec. 8 of the same chapter, which provides that each county society may adopt a constitution and by-laws for the regulation of its affairs, provided the same shall first be approved by the council of the state society.

NORTH CAROLINA: Standard constitution and by-laws.

OHIO: Standard, with the addition, "Who is not affiliated with any organization which aims to foster any exclusive dogma in therapeutics."

OKLAHOMA:

OREGON: Standard, with the substitution of the clause, "Who is practicing in accordance with the Code of Ethics of the American Medical Association," in place of the clause, "Who does not practice or claim to practice or support sectarian medicine."

PENNSYLVANIA: Standard constitution and by-laws.

RHODE ISLAND: Standard constitution and by-laws.

SOUTH CAROLINA: Every reputable and legally registered white physician who does not practice or claim to practice sectarian medicine.

SOUTH DAKOTA: Standard constitution and by-laws.

TENNESSEE: Standard constitution and by-laws.

TEXAS: Every reputable and legally registered white physician, etc.

UTAH: Standard constitution and by-laws.

VERMONT: Membership in the state association consists of all members of all county societies and all others who were active members of the society at the time the amended constitution was adopted.

VIRGINIA:

WASHINGTON: Each county society shall judge of the qualifications of its own members. School of graduation shall be no bar to membership provided the applicant does not claim to practice any exclusive system of medicine.

WEST VIRGINIA: Standard constitution and by-laws.

WISCONSIN: Standard constitution and by-laws.

WYOMING: Standard constitution and by-laws.

The committee has not taken this matter up but would recommend that this question be referred to the enlarged committee for further consideration.

PROCEDURE IN CASES OF DISCIPLINE

Another matter which has been suggested as coming under the jurisdiction of the committee is that of the provisions of the by-laws of county and state societies and the American Medical Association relating to the method of procedure in disciplining members. Cases for discipline occasionally arise, in which it is necessary to put a member on trial under charges of unprofessional conduct, etc. Much confusion exists in the provisions found in the constitutions of the different parts of the organization on this point. The by-laws of the American Medical Association provide (Sec. 4, Chap. 10, Book 3, page 19) for a Judicial Council, to which "shall be referred all questions, complaints, protests and matters of an ethical nature. When such complaints, protests, etc., concern an individual's relations with his local society they shall be considered by this council only after the same shall have been referred to the constituent association concerned or of an appeal from such constituent association. Its decision shall be subject to appeal to the House of Delegates."

There is no provision in this by-law as to how an appeal from the constituent association shall be made; as to whether an appeal can be made by either the constituent association or the individual involved, or whether an appeal can be made by a member other than the member on trial. Neither is there any provision as to the length of time after a decision in which an appeal must be made. There is consequently nothing to prevent an appeal to the Judicial Council being made on any question which has ever been before a constituent association. Obviously there should be some provisions regarding the form and manner of an appeal, as well as a limit to the length of time within which an appeal can be filed.

The provisions of the state constitutions and by-laws are equally vague. The standard constitution for state associations prepared by the Organization Committee (Sec. 3, Chap. 7, page 18), provides that "the Council shall be the Board of Censors of the state associations. It shall consider all questions regarding the right and standing of members, whether in relation to other societies, component societies or the state association." There is no clear provision regarding the manner of appeal from the decision of the county society, either to the councilor for the district or to the Judicial Council of the state society. If appeal is made to the councilor of the district, how soon after the decision of the county society in the case should the appeal be made? In what form should it be presented? Has either party the right of appeal or only the defendant? Should the appeal contain an abstract of the testimony as shown by the records of the society or simply an *ex parte* statement from the party appealing? How soon after the case is appealed to the individual councilor should he render a decision? There is at present nothing to prevent the councilor from putting the papers in the case in his pocket and declining to render a decision. If the case is appealed to the Judicial Council, does this body have a right to reopen the case and hear new evidence, to pass on the truthfulness of the evidence submitted and to decide the case on its merits, or would the council be authorized simply to review the evidence as presented at the first trial without going back of the record? Can the council of the state society have original jurisdiction in any case, or can it only hear cases on the appeal from the individual councilor or from the decision of the county soci-

eties? The standard constitution and by-laws provide that all questions involving the rights and standing of members, no matter of what nature, shall be referred to the council without discussion, that the council shall decide, and that its decision shall be final. This evidently puts a bar on any appeal to the House of Delegates of the state association. Does it also act as a bar to an appeal to the Judicial Council of the American Medical Association? No provision is made in the standard constitution and by-laws for such an appeal, nor is the manner in which an appeal can be made specified.

The same lack of clearness exists in the standard constitution and by-laws for county societies. Sec. 2, chap. 4, page 12, provides, "that the Board of Censors shall investigate charges preferred against a member and report its conclusions and recommendations to the society." Sec. 7, chap. 1, provides for the filing of such charges against a member, but does not specify how such charges shall be heard by the Board of Censors. Such questions as the following are frequently referred to the General Secretary by secretaries of county societies, members of boards of censors or members under accusation of unprofessional conduct: Is the accused entitled to be represented before the board by another member or by a non-member (attorney, for instance), or must he defend himself? Has the Board of Censors the right or authority to examine witnesses from among members of the society? Can members not members of the society testify before the Board of Censors? Has the accused the right to present witnesses who are not members? Can charges be brought against a member of the county society by a non-member? How should charges brought against a member by a layman be disposed of? Has the accused member the right to cross-examine witnesses introduced by the complainant? Has the accused member the right to introduce affidavits or signed statements in case he is not able to secure the presence of witnesses necessary to prove essential facts, etc?

Inasmuch as the difficulties and misunderstanding growing out of such cases are largely due to lack of specific provisions regarding these details, the importance of definitely outlining the method of procedure so as to leave no doubt on any point and yet so fully as to safeguard the rights of all concerned is evident.

As this matter has been presented to your committee for consideration, we would recommend that it be referred either to this committee, to the Committee on Organization or to the Judicial Council for careful consideration and for the formulation of specific provisions for the by-laws of the American Medical Association and for the standard constitution and by-laws for county societies, as well as for recommendation to the state societies.

Respectfully submitted,

THOMAS MCDAVITT, Chairman.
WALTER STEINER,
FREDERICK R. GREEN.

Committee on Triennial Reapportionment

THE FIRST VICE-PRESIDENT: I wish to announce the Committee on Triennial Reapportionment, namely: Dr. J. F. Percy, Illinois, chairman; Dr. E. J. Goodwin, Missouri, and Dr. O. J. Brown, Massachusetts.

Name of Section on Cutaneous Medicine and Surgery

The General Secretary read the following communication, addressed to Dr. R. R. Campbell, delegate of the Section on Cutaneous Medicine and Surgery, from the secretary of the Section:

At the 1907 Session of the Section on Cutaneous Medicine and Surgery at Atlantic City, it was moved that a committee consisting of the incoming officers of the Section and the members of the Executive Committee should obtain an expression of opinion as to what name they considered most advisable for the Section, inasmuch as a great deal of dissatisfaction had been expressed with the present name of the Section, which was changed some years ago from that of the Section on Dermatology to that of the Section on Cutaneous Medicine and Surgery.

The Secretary, in accordance with the above instructions, mailed 222 reply postal cards to the various members who had registered in the Section during the past four years in accordance with the list of the 1907 transactions. One hundred and twenty-two responses were received; two cards were returned from the Dead Letter Office with the present address unknown. Of this number, 80 members expressed themselves in favor of changing the name to Section on Dermatology; 19 favored retaining the present name, Section on Cutaneous Medicine and Surgery; 7 favored Section on Diseases of the Skin; 5, Section on Dermatology and Syphilology; 4, Section on Cutaneous Diseases; 1, Section on Dermatology and Malignant Growths; 1, Section on Skin Diseases, Nutrition and Elimination; 1, Section on Cutaneous Medicine and Radiotherapy; 1, Section on Eruptive Diseases; while 3 were indifferent to the situation. Analysis of the result showed that 100 out of 119 members expressed themselves as dissatisfied with the present name of the Section. The name, Section on Dermatology, received four times as many votes as the present name of the Section, which was the next highest on the list, and received almost twice as many votes as all the other names combined.

This report, which was submitted and signed by the committee, was accepted by the Section, to be transmitted to the House of Delegates with the recommendation of the Section that its name be changed to Section on Dermatology.

I therefore ask you kindly to bring this matter before the House of Delegates and to use your kind offices in effecting this desired change for the Section.

This communication was referred to the Reference Committee on Sections and Section Work.

The Use of the Red Cross Emblem

MAJOR M. W. IRELAND, United States Army, presented the following resolutions adopted by the Executive Committee of the American National Red Cross, Oct. 18, 1907:

WHEREAS, By international agreement in the Treaty of Geneva, 1864, and the Revised Treaty of Geneva, 1906, "the emblem of the Red Cross on a white ground and the words Red Cross or Geneva Cross" were adopted to designate the personnel protected by this convention, and

WHEREAS, The treaty further provides (Art. 23) that "the emblem of the Red Cross on a white ground and the words Red Cross or Geneva Cross can only be used whether in time of peace or war, to protect or designate sanitary formations and establishments, the personnel and material protected by this convention," and

WHEREAS, The American National Red Cross comes under the regulations of this treaty according to Article 10, "volunteer aid societies, duly recognized and authorized by their respective governments," such recognition and authority having been conferred upon the American National Red Cross in the charter granted by Congress, Jan. 5, 1905, Sec. 2." The corporation hereby created is designated as the organization which is authorized to act in matters of relief under said treaty," and, furthermore,

WHEREAS, In the Revised Treaty of Geneva, 1906, in Article 27, it is provided that "the signatory powers whose legislation should not now be adequate, engaged to take or recommend to their legislatures such measures as may be necessary to prevent the use by private persons or by societies other than those upon which this convention confers the right thereto of the emblem or name of the Red Cross or Geneva Cross," be it

Resolved: That the executive committee of the American National Red Cross requests that all hospitals, health departments and like institutions kindly desist from the use of the Red Cross created for the special purpose mentioned above, and suggests that for it should be substituted some other insignia, such as a green St. Andrew's cross on a white ground, to be named the "Hospital Cross," and used to designate all hospitals (save such as are under the Medical Department of the Army and Navy and the volunteer aid society of the government), all health departments and like institutions, and, further, be it

Resolved: That the Executive Committee of the American National Red Cross likewise requests that all individuals, associations, or business firms and corporations who employ the Geneva Red Cross for business purposes, kindly desist from such use, gradually withdrawing its employment and substituting some other distinguishing mark.

After submitting the above preambles and resolutions from the American National Red Cross, Major Ireland introduced the following resolutions, which were referred to the Reference Committee on Legislaion and Political Action:

WHEREAS, By the terms of the Treaty of Geneva, 1864, and the Revised Treaty of Geneva, 1906, the emblem of the Greek Red Cross on a white ground, and the words "Red Cross" or "Geneva Cross," were adopted to designate the personnel and material of the medical departments of the military and naval forces and of the recognized volunteer aid societies in time of war, for the humane purpose of rendering them immune from attack and capture, and

WHEREAS, The United States, as well as all other civilized powers, is a signatory to said territory, and

WHEREAS, The use of the Red Cross by medical associations and individuals of the medical profession must seriously impair the usefulness of the emblem for the purposes for which it was created and adopted, be it therefore

Resolved: That it is the sense of the American Medical Association that the use of the Geneva Cross by associations or individuals, other than those of the Army, Navy and Red Cross Society should be discontinued and, if desirable, some other insignia adopted, and be it further

Resolved: That the adoption of this resolution be given as wide publicity as possible in the medical journals of the country.

DR. SAMUEL WOLFE, Pennsylvania, supplemented the resolutions presented by Major Ireland by introducing the following preambles and resolution, which were also referred to the Reference Committee on Legislation and Political Action:

WHEREAS, It is held that the Red Cross, which now constitutes the main character in the official badge of the American Medical Association is eminently distinctive of certain broader fields of philanthropy, rather than of medicine in particular, and

WHEREAS, The traditions of medicine would be fully satisfied by the adoption of a design as herewith submitted and described as follows:

A shield on which is emblazoned the American Eagle holding in its talons a laurel wreath within which is the knotty rod and entwined serpent and the letters A. M. A. Therefore, be it

Resolved: That the American Medical Association adopt as its official insignia or badge this design.

Resolutions Regarding Creation of New Section

DR. EUGENE C. HAY, Arkansas, presented the following:

WHEREAS, It is a fact that not sufficient attention is paid by the general profession to the study of syphilis and its treatment, and likewise genitourinary diseases, this condition I believe is caused by the neglect of these important branches by our national Association, I consider the time is ripe for the creation of a new section in the American Medical Association, and

WHEREAS, All the recent progress and development in the pathology of syphilis has been made in Europe, the pathology treatment and armamentarium in modern genitourinary work all comes from the other side, hence I think we should keep abreast of our European brothers in this rich and prolific field of labor. Any one presenting a paper on syphilis before the American Medical Association is referred to the Section on Cutaneous Diseases and Surgery. One presenting a paper on a genitourinary subject is referred to the Section on Surgery and Anatomy. As most [illegible] genitourinary men and very few dermatologists [illegible] the two diseases, syphilis and gonorrhea, are [illegible] together in the minds of the laity, it is perfectly natural that any member of the profession who makes a specialty of either, naturally becomes a specialist in both, resulting from the class of patients who consult him. Therefore, be it

Resolved: By the House of Delegates now assembled that the American Medical Association pass a resolution for the creation of a new section to be called the Section of Venereal and Genitourinary Diseases.

The resolution was referred to the Reference Committee on Sections and Section Work.

On motion, the House of Delegates then adjourned until 2 p. m. Tuesday.

Third Meeting—Tuesday, June 8, 1909

The House of Delegates met at 2 p. m., and was called to order by the President, DR. WILLIAM C. GORGAS, U. S. Army.

The Secretary called the roll, and eighty-one members responded.

DR. H. BERT ELLIS, California, Chairman, presented an additional report for the Committee on Credentials.

The minutes of the previous meeting were read and adopted.

Grant for Scientific Research

DR. WILLIAM H. WELCH, Maryland, Chairman of the Board of Trustees, presented the following report of the Board of Trustees in regard to the report of the Committee on Scientific Research:

Supplementary Report of the Board of Trustees

The Board of Trustees approves the recommendation of the Committee on Scientific Research, that the grant of $200 to Dr. Carl Voegtlin and Dr. W. G. MacCallum be allowed, and would urge the advisability of sending to all recipients of grants a statement of the rules governing such appropriations.

The Board at the February meeting anticipated the recommendation of the Committee by increasing the annual appropriation to $1,000.

The Board desires to commend the work of the Committee on Scientific Research. The results obtained by the grants in the promotion of scientific research fully justify the relatively modest expenditure of the funds appropriated for this purpose by the Association.

On motion of DR. G. L. TANEYHILL, Maryland, the report was accepted and adopted.

Report of the Reference Committee on Medical Education

DR. GEORGE DOCK, Section on Practice of Medicine, Chairman, presented the following report of the Reference Committee on Medical Education:

To the House of Delegates of the American Medical Association:

The Reference Committee on Medical Education endorses the report of the Council on Medical Education and recommends the report to the careful attention of the Association, as well as to medical educators.

The Reference Committee believes that the work of the Council is one of the most important undertakings of the Association, and believes the Council should receive the most thorough financial and moral support of the Association. It recommends that the Council be continued and that provision be made for carrying on its work.

It wishes to go beyond the report and to recommend especially the valuable compilations and analyses of the results of examinations by state boards for medical licensure as published annually in THE JOURNAL.

It also recommends the compilation of laws regulating the study and practice of medicine.

It hopes that the recommendations in regard to practical examinations before state boards will receive the careful attention of those boards. It suggests that the questions in the examinations be as practical as possible, and that efforts be made to provide practical clinical and laboratory examinations as soon as the laws and regulations can be made to permit.

The Committee also recommends that state boards of medical examiners endeavor to make the examinations uniform regarding preliminary and professional training, believing that uniformity in examination will tend to bring about a solution of the problem of reciprocity and remove one of the most serious objections to the present working of state board examinations.

It endorses the method and results of the investigations and reports on medical schools, as carried out by the Council, and calls attention to the section in the report showing the progress and consolidation of medical colleges.

It commends the work of the Council in the effort to establish a uniform curriculum, believing that even if the course submitted can not be adopted at once, it must be of great value as a standard of comparison, and a guide to future changes.

GEORGE DOCK, Chairman.
H. D. ARNOLD.
A. VANDER VEER.
VICTOR H. STICKNEY.
W. W. RICHMOND.

On motion of DR. L. F. BARKER, Maryland, seconded by DR. S. S. CROCKETT, Tennessee, the report was adopted as read.

Report on the Scientific Exhibit

DR. FRANK B. WYNN, Indiana, Chairman, read the following report on the Scientific Exhibit:

To the House of Delegates of the American Medical Association:

It is of passing interest to note that ten years ago in this city was presented the first scientific exhibit. The project was experimental, and those who undertook the work did so with trepidation, but with a strong feeling of hope and confidence in its practicability and usefulness. The passing years have justified the faith. The Scientific Exhibit has become as much a part of the permanent work of the Association as the work of the Sections.

The exhibit submitted at this time emphasizes the effort of the Committee to classify and systematize the work. The features made more or less prominent in this exhibit are:

(a) Specimen groups, gross and microscopic, illuminating special phases of pathology, diagnosis, etc.

(b) Research exhibits.

(c) Those relating to hygiene and sanitary science.

I wish to express my deep appreciation of the cordial cooperation, the untiring and efficient service of my colleagues on the Committee, Dr. W. M. L. Coplin and Dr. Ross McPherson; also to tender thanks to Dr. John M. Swan of the local committee in Philadelphia, and to Dr. I. E. Leonard of the local committee in Atlantic City, and to the many exhibitors whose names appear below. It is only through the devotion of such unselfish men, cherishing the higher ideals in medicine, that the scientific exhibit becomes possible.

So far as definitely ascertained at this date, the exhibitors are given below; others will unquestionably be added to this list:

John M. Swan, Polyclinic Hospital, Philadelphia, the pathology of malaria.

Howard T. Karsner, University of Pennsylvania, tumors of the gastrointestinal tract.

W. M. L. Coplin and John Funk, Jefferson Medical College, a series illustrating the morbid anatomy of renal disease.

Herbert Fox, Pennsylvania State Department of Health, tumors from animals at the zoological garden.

J. N. Busch, Henry Phipps Institute, Philadelphia, cultures of microorganisms from tuberculous lungs.

J. A. Kelley, Polyclinic Hospital, Philadelphia, series of gynecologic specimens.

Randle C. Rosenberger, Philadelphia General Hospital, specimens illustrating diseases of the heart.

Leo Loeb, University of Pennsylvania, specimens showing experimental deciduomata.

Edward M. L'Engle, Medico-Chirurgical College, Philadelphia, gastrointestinal series.

D. P. Pfeiffer, German Hospital, Philadelphia.

J. A. Moore, St. Mary's Hospital, Philadelphia.

Philadelphia Roentgen Society, under the direction of Dr. Charles Lester Leonard, an exhibit relating to the diagnosis of thoracic, abdominal and bone lesions.

The following will show plates:

M. K. Kassabian, C. L. Leonard, S. L. Feldstein, S. M. McCollin, W. S. Newcomet, W. F. Manges, H. K. Pancoast and G. E. Pfahler.

J. M. Swain, C. B. Longenecker, American Oncologic Hospital.

Edward A. Schumann, Gynecean Hospital, series of extrauterine pregnancies.

E. M. Meter, Reading, Pa., radiograms.

Ross McPherson and J. E. Welch, New York Lying-in Hospital; William S. Bainbridge, Skin and Cancer Hospital; Simon Flexner, Rockefeller Institute; James Swing, Cornell University Medical School; New York Board of Health; Dr. R. M. Pearce, Bellevue Medical School; New York Post-Graduate Medical School; Charities Association, Tuberculosis Exhibit.

Dr. Emil C. Beck, Chicago, stereoscopic radiographs of the chest.

Dr. Jose L. Hirsch, Baltimore, specimens in the name of the University of Maryland.

A. W. Crane, Kalamazoo, *x*-ray plates illustrating cancer of the stomach.

Louis B. Wilson, Rochester, Minn., photographs showing relation of gastric ulcer and cancer, from laboratories of William and Charles Mayo.

TUBERCULOSIS EXHIBITS: New York Charities Association; New York State Department of Health, by A. N. Seymour; Connecticut State Department of Health, by Gardner T. Swartz; Maryland State Department of Health, by Marshall Langton Price; Indianapolis Medical Society.

It is recommended that a committee of three be appointed by the President to pass on awards for medals and certificates of honor.

It is recommended that the usual appropriation be made for maintenance and for medals and certificates of honor.

Appeal to the human eye in the commercial world has always been the chief means of attracting those who have money to spend. Artistic arrangement of articles in shop windows and show cases always acts suggestively to a prospective purchaser. This really is the exhibit idea. It has been elaborated in modern times in expositions, fairs, and the like. The modern commercial world likewise appeals with extraordinary effect to the public through advertising. Inartistic but striking advertisements stare us in the face as we travel, glare at us in the street car, and distract our attention from readable matter in the daily paper, so that, whether we will or not, we become familiar with peruna, quaker oats, and bull durham tobacco.

It seems strange, indeed, that this principle should not have been more generally applied in the dissemination of educational knowledge among the people. To be sure, in the modern methods of higher education the museum and laboratory have played a conspicuous part. Growing out of this phase of educational work have arisen scientific exhibits, in the inauguration of which this organization has done pioneer service.

In the further evolution of this tendency, health boards and various public-health organizations have instituted exhibits for the enlightenment of the people on sanitary and public-health questions.

Tuberculosis has received widest attention. While excellent, most exhibits have been spasmodic and sporadic. They have been expensive and cumbersome to manage. Maintained for only a few days, but a small proportion of people ever see them. The need is for some means of constantly keeping before the eyes of laymen the tuberculosis problem in all its aspects; to make plain, as Dr. Osler has recently emphasized, that it is a people's problem. Of course, the issuance of propaganda by health authorities, societies and popular lectures relating to the question have greatly enlightened the public mind. But again there is the lack of continuity in the work, and the failure to reach the great mass of the people.

To your Committee it has seemed that there is a demand for a compact but complete tuberculosis exhibit, housed in a substantial case, and suited to permanent installation in public libraries, postoffices, railway stations, etc. A year ago the committee offered a medal, with the hope of developing a model exhibit adapted to this end. No exhibit was presented which was considered sufficiently meritorious to receive the award. The same offer has been repeated this year.

The exhibit idea is capable of great elaboration and practical application in teaching the people the lessons of hygiene and sanitary science. It is a phase of original practical work, to which your Committee has given earnest thought, and which it is hoped to supplement by fruitful results. Public-health exhibits are certain to play an important rôle in the march of preventive medicine. They are a type of advertising in the interest of the public weal.

The Committee, in seeking to stimulate their development, is exceedingly anxious that they should be along sane and judicious lines. On the one hand, they should be attractive, if they are to catch the eye of the public; but on the other hand, they should be dignified, else they will not command the respect of the intelligent and prudent. They should make very plain the great truths it is desired to bring home to the people; they should contain sufficient science to convince the lay mind of the truths which it is sought to inculcate, but not enough to cloy the enthusiasm or direct attention from the great practical lessons.

Your Committee feels that in the field of preventive medicine this Association has a great opportunity—in fact, a duty—to properly poise and direct the evolution of exhibits designed for the enlightenment of the public on sanitary and hygienic questions. Toward the attainment of these ends your aid and cooperation are asked. FRANK B. WYNN, Chairman.

On motion of DR. W. L. ESTES, Pennsylvania, seconded by DR. J. W. PETTIT, Illinois, the report was accepted and the recommendations adopted.

The President appointed as Committee on Awards Drs. L. F. Barker, William J. Mayo, and H. A. Christian.

Report of Subcommittee on Carroll Fund

MAJOR IRELAND presented a supplementary report from the Committee on Medical Legislation, in the form of a report of a sub-committee on the Carroll Fund, to the Legislative Committee of the American Medical Association.

To the Legislative Committee, American Medical Association:

The following resolution was passed by the National Legislative Council of the American Medical Association during its meeting at Washington, Jan. 18-20, 1909:

Resolved: That a committee composed of one member of the Army Medical Department, one of the Navy Medical Department, one of the Public Health and Marine-Hospital Service, one member of the District of Columbia Medical Society, and one member to represent the profession at large, members of the Council, be named by the Chairman, and instructed to present to the different medical services of the government, the District of Columbia, and the profession at large the conditions of distress under which the widow of our hero brother, Major James Carroll, is placed, and suggest or help to devise such plan and action as may speedily bring relief.

A. S. VON MANSFELDE, Chairman,
J. E. MCDONALD,
JAMES T. GREELEY.

It was moved and seconded that the report be adopted.

The Chair appointed as a committee Dr. A. S. von Mansfelde of Nebraska; Maj. M. W. Ireland, U. S. Army; Surgeon W. H. Bell, U. S. Army; Surgeon John F. Anderson, Public Health and Marine-Hospital Service; Dr. John D. Thomas, District of Columbia.

As soon as the official notification was received from the Secretary of the Committee of the action taken by the Legislative Council the members proceeded in what they considered the best way to raise the necessary funds to save the home of the widow of the late Major Carroll.

The Public Service members of the Committee sent a circular letter to the members of their respective corps, inviting attention to the resolution passed by the Legislative Council, stating the financial distress of Mrs. Carroll and asking for assistance. Dr. John D. Thomas of the District of Columbia had a personal interview with a great many members of the profession in the District of Columbia, and also brought the subject to the attention of the profession through the different societies in the city. Letters appealing to the profession at large were published in THE JOURNAL of the American Medical Association, and an editorial was prepared and published in THE JOURNAL. The subscription list was kept before the profession at large by inserting in the weekly issue of THE JOURNAL the list of those who had subscribed during the preceding week. Through the courtesy of the assistant secretary,

Dr. Green, circular letters were sent to various state societies which were to hold their annual meetings during the months of April and May. A notice in the New York press attracted the attention of several philanthropic people, with the result of one liberal subscription.

The result of the appeal to the profession has been extremely gratifying, and your Committee feels certain that the agencies now at work will secure a sufficient amount of money to raise the indebtedness on the Carroll property during the coming year.

It was found necessary to make certain expenditures from this fund to pay the notes that are falling due on the third of each month; to pay the interest on the $5,000.00 mortgage on the property, and to pay the taxes to save the property from being sold at public auction. The Chairman of the Committee took the responsibility of meeting these obligations and of making the necessary expenditures to carry on the work of the committee. The total of these expenditures was $567.02.

The indebtedness on this property to-day is as follows:

Forty-three $50.00 notes	$2,150.00
One mortgage	5,000.00
	$7,150.00

The amount of money on hand to-day to pay this indebtedness is $5,700.82, leaving $1,449.18 to be raised.

The semi-annual interest of $125.00 on the $5,000.00 falls due on June 15. Respectfully submitted,

William Hemphill Bell.
John F. Anderson.
John D. Thomas.
M. W. Ireland, Chairman.

The report was referred to the Reference Committee on Legislation and Political Action.

Report of Reference Committee on Reports of Officers

Dr. Alexander R. Craig, Pennsylvania, Chairman, read the report of the Reference Committee on Reports of Officers, as follows:

To the House of Delegates of the American Medical Association:

The Reference Committee on the Reports of Officers begs leave to report that it has had under consideration "The President's Address" of Dr. Herbert L. Burrell, the "Report of General Secretary" and the "Report of the Board of Trustees."

These have all been carefully reviewed and the Committee recommends the following action by the House of Delegates:

I

In order that they may become conversant with the policies formulated by the Board of Trustees, it is suggested to the Board of Trustees that the President and the President-Elect of the Association be invited to be present at the formal meetings of the Board when it meets in the interim between the annual sessions.

II

In order that the Association may become more closely knit together and its various energies be co-ordinated, it is advised that all committees, whether constituted by the House of Delegates or by any of the Sections, be required to act with the advice and under the direction of the Board of Trustees in the intervals between the sessions of the House of Delegates and that the defined policies of all committees and of the sections of the Association shall be approved by the Board of Trustees before being issued to the public as in the name of or under the auspices of the Association. In order that this action may become a part of the law of the Association, the Committee offers the following amendments to the Constitution and By-laws:

Page 16.—Chapter IX, Section I: Add to the section the words "during the intervals between the sessions of the House of Delegates, the Board of Trustees shall supervise the action of committees constituted by action of the House."

Page 18.—Chapter X, Section I: Add to the section the words "any of these committees, acting during the intervals between the sessions of the House of Delegates shall be subject to the Board of Trustees."

III

As the Board of Trustees makes annually appropriations for the expenses incurred by the various standing committees, no action is deemed necessary by your Reference Committee.

IV

As the Board of Trustees now has full authority to consider and act on the advisability of having different individuals elected to the offices of Editor and General Manager of The Journal and of Secretary of the Association, this Committee recommends that no action be taken in this matter by the House.

V

A special committee has offered a report on the "Regulation of Membership." This report is worthy of serious consideration by this House, but the Reference Committee on Reports of Officers makes no recommendations under this heading, preferring to await the report of the Committee to which the findings of this special committee have been submitted.

VI

This House and the Association at large are to be congratulated that the Board of Trustees are privileged to make so satisfactory a report, and this Committee recommends that a vote of thanks carrying the approbation and commendation of this House be passed in honor not only of the Board of Trustees, but also of the members serving on the various committees, special note being made of the Council on Pharmacy and Chemistry, Dr. McCormack, the staff compiling the American Medical Directory, those responsible for the success of The Journal, and the editors of the *Archives of Internal Medicine.*

This Committee is advised that with regard to the project of erecting a new building the conditions are as follows:

The money is on hand for the enterprise in the shape of bonds, certificates of deposit in banks drawing interest and cash on hand. The building can be erected without incurring indebtedness and without curtailing the present work of the Association or its committees. The old building can be let for manufacturing purposes, returning a good interest on the money invested.

The building will enable the Association to conduct its business more economically than at present on account of the present necessity of much "overtime" work with double pay, due to the lack of sufficient room. It will provide sufficient space in which to instal the working headquarters of the various councils and standing committees, which is essentially the accomplishment of results. The Association already owns the land on which the building is to be erected.

It is, therefore, recommended that the Trustees be given full authority to proceed in the matter of erecting the proposed building.

On motion of Dr. C. E. Cantrell of Texas, seconded by several delegates, the report was adopted.

Report of the Reference Committee on Miscellaneous Business

Dr. T. A. Woodruff, Section on Ophthalmology, Chairman, presented the following report of the Reference Committee on Miscellaneous Business:

To the House of Delegates of the American Medical Association:

In view of the fact that Dr. N. S. Davis was the founder of the American Medical Association and as such should be entitled to especial honorable consideration at the hands of this body, your Committe recommends that the American Medical Association appropriate the sum of five thousand dollars ($5,000) for the purpose of erecting a suitable memorial to his memory, provided that the additional sum of twenty thousand dollars ($20,000) be collected for this purpose.

This appropriation of five thousand dollars ($5,000) shall not become available until the twenty thousand dollars ($20,000) is paid into the committee.

T. A. Woodruff, Chairman.
J. H. Pierpont.
A. M. Hume.
J. D. Griffith.
John Champlin.

DR. ARTHUR T. MCCORMACK, Kentucky, moved that the report be referred to the Board of Trustees, as it involves the appropriation of money (seconded).

DR. R. R. CAMPBELL, Illinois, moved as an amendment that the report be referred to the Board of Trustees, with the recommendation that a three-year limit be imposed for the collection of this $20,000.

The amendment was seconded and accepted.

DR. H. C. SHARP, Indiana: It seems to me the proper way is for this report to be referred to the Board of Trustees carrying with it the recommendation of favorable action by the House of Delegates as a guide for the action of the Board of Trustees.

DR. C. E. CANTRELL, Texas: This report should naturally take the course of being referred to the Board of Trustees, as it has emanated from a Reference Committee of this House, this committee recommending to the Board that a certain thing be done.

Report of the Council on Defense of Medical Research

To the Members of the House of Delegates of the American Medical Association:

The Council on the Defense of Medical Research was established by vote of the House of Delegates at the Chicago meeting of the American Medical Association in June, 1908. The Council was organized at a meeting in Philadelphia November 7, 1908, with Dr. W. B. Cannon, Boston, as Chairman, and Doctors J. A. Capps, Chicago; Harvey Cushing, Baltimore; D. L. Edsall, Philadelphia; Simon Flexner, New York; Reid Hunt, Washington, and H. C. Moffitt, San Francisco, as members.

The work of the Council during the past year may be classified under three headings—first, investigating the conditions of animal experimentation and the opposition to it; second, taking precautions against abuse of animal experimentation and against misconceptions of the conditions and purposes of medical research; third, diffusing information regarding laboratory procedures and the results of laboratory study of disease.

THE INVESTIGATION OF THE CONDITIONS OF ANIMAL EXPERIMENTATION AND THE OPPOSITION TO IT

In order to obtain information regarding the conditions of medical research in the United States circulars were sent to 111 of the most prominent schools. Reports have come in from 80 of these schools. Among those from which no reply has been received are a number of homeopathic colleges and other institutions in which animals are probably not used. It is likely that in not more than four of the schools that have not reported are animals used for experimental purposes. The information that has been accumulated is, therefore, quite complete.

In the circular questions were asked as to the approximate number of different kinds of animals used per year; the methods of securing these animals; the number of dogs and cats killed in the city merely to get rid of the excess; the care of animals in the medical school, including the ventilation, warmth, cleanliness and lighting of their rooms; whether operations likely to involve pain were always performed with anesthetics; whether students were permitted to carry on independent animal experimentation or were cautioned against it; whether experimental work was conducted under rules, and whether any public hostility to animal experimentation existed in the community.

These questions have been fully answered and the answers will be published in a paper to appear in a series of papers later to be described in this report.

In order to understand the nature of the opposition to medical research the Council has collected antivivisection literature from all the societies in the United States and has subscribed to antivivisection journals. It has, likewise, obtained from a Clipping Bureau the statements for and against vivisection, which have appeared in newspapers and other periodicals throughout the country. An analysis of this literature will be presented, likewise, in a later publication of the Council.

PRECAUTIONS AGAINST ABUSE OF ANIMAL EXPERIMENTATION AND AGAINST MISCONCEPTIONS OF ITS CONDITIONS AND PURPOSES

As much of the "evidence" cited by hostile agitators is taken from articles in journals devoted to the medical sciences, the Council sent a circular letter to the editors of medical and scientific journals urging careful examination of submitted articles with the purpose of eliminating words likely to cause misapprehension regarding the experience of animals used for research, and especially requesting that authors be asked to make sure that when anesthesia is a condition of the investigation the fact be made prominent. This letter met with cordial response.

Hostile agitators have also declared that irresponsible and untrained medical students operate on animals in private places outside of proper supervision. The evidence for this suggestion has not yet been forthcoming. The Council sought, however, to remove even the slight suspicion thus cast on animal experimentation by advocating that teachers of the medical sciences speak to students concerning the importance of the experimental method in medical research, the suspicion of laymen that animals are not treated humanely in laboratories, the resulting agitation for hostile legislation, the injury to medical science that must result from checking animal experimentation, the desirability that every care be taken to obviate discomfort and pain in using animals for research and instruction, and the urgent necessity that students avoid any act or word that would tend to rouse a feeling against the humane use of animals for educational and research purposes. This letter revealed the fact that already in a very large number of medical schools such advice had been regularly given to students, and that there was no evidence that students failed to realize the great importance of what was said or that they did not obey to the letter the caution which was given them.

The Council learned that in the larger medical laboratories rules had been posted stating the conditions and expressing the spirit in which animal experimentation was to be conducted. The Council collected these rules, summarized and revised them, and sent them to all laboratories which had reported that animal experimentation was carried on within their walls. These rules are as follows:

RULES REGARDING ANIMALS

I. Vagrant dogs and cats brought to this Laboratory and purchased here shall be held at least as long as at the city pound, and shall be returned to their owners if claimed and identified.

II. Animals in the Laboratory shall receive every consideration for their bodily comfort; they shall be kindly treated, properly fed, and their surroundings kept in the best possible sanitary condition.

III. No operations on animals shall be made except with the sanction of the Director of the Laboratory, who holds himself responsible for the importance of the problems studied and for the propriety of the procedures used in the solution of these problems.

IV. In any operation likely to cause greater discomfort than [illegible] ation the animal shall first be rendered [illegible] in and shall be maintained in that con- [illegible] is ended.

Exceptions to this rule will be made by the Director alone and then only when anesthesia would defeat the object of the experiment. In such cases an anesthetic shall be used so far as possible and may be discontinued only so long as is absolutely essential for the necessary observations.

V. At the conclusion of the experiment the animal shall be killed painlessly.

Exceptions to this rule will be made only when continuance of the animal's life is necessary to determine the result of the experiment. In that case, the same aseptic precautions shall be observed during the operation and so far as possible the same care shall be taken to minimize discomforts during the convalescence as in a hospital for human beings.

DIRECTOR OF THE LABORATORY.

These rules have been adopted in a number of new places and the Council hopes that they will be made the regulations for research in all medical laboratories in the United States. Although they probably do not change in any respect the already good conditions under which animal experimentation is conducted, they indicate to newcomers in the laboratories and to interested and intelligent people the intent of the investigators and the precautions which they take against suffering.

THE DIFFUSION OF INFORMATION REGARDING ANIMAL EXPERIMENTATION

The information which the Council has secured has been utilized in enlightening the editors of certain lay publications regarding the conditions of medical research, and also regarding the character of the opposition to it, both in this country and abroad.

The Council has also cooperated with the local research defense societies, especially those of Massachusetts, New York, Pennsylvania and Wisconsin, and also with that of England, in an interchange of information with resulting mutual helpfulness.

In order to forestall the possibility of hostile legislation the Council sent out during the sessions of the legislatures in the various states a circular letter to the deans of medical schools and to the members of the National Auxiliary Committee on Medical Legislation, stating the specific and general objections to such legislation. This letter revealed an

alert body of men scattered through the country who were ready to perform their part in securing to the communities they served the benefits of medical research.

The Council has planned a series of papers, by experts, on the importance of animals in the development of various phases of medical science and practice, to be published primarily in *The Journal* of the American Medical Association, with the hope that thus a body of evidence will be secured which physicians can refer to in case agitation arises in their communities. It is probable that these papers will be reprinted in book form, or as pamphlets, and either placed on sale or distributed in regions where agitation is active.

The series includes the principles of serum therapy, diphtheria and tetanus, meningitis, rabies, smallpox, dysentery and cholera and typhoid fever, plague, tuberculosis, syphilis, tropical protozoan diseases, diseases caused by metazoan parasites, disturbances of internal secretions, the physiology of the circulation, pharmacology, venoms and antivenins, two papers on experimental surgery—surgical technique and aseptic surgery, cancer research, hygiene and sanitary science, including the diagnosis and control of contagious diseases, the economic importance of diseases which have been lessened by animal experimentation, the use of animals in cattle bureaus, the experience of animals in laboratories, the ethics of animal experimentation, the educational value of operations on animals, and the more complex inter-relations of research and practice. The first paper of the series will be published in an early number of *The Journal*.

W. B. CANNON, Chairman. HARVEY CUSHING.
SIMON FLEXNER. REID HUNT.
DAVID L. EDSALL. JOSEPH A. CAPPS.

DR. WALTER B. CANNON, Chairman, requested that the report be accepted as printed.

On motion, the request was granted, and the report was referred to the Reference Committee on Miscellaneous Business.

Pension for Dr. Atkinson

DR. S. S. CROCKETT, Tennessee: I desire to offer the following preamble and resolutions, and move that they be referred to the Reference Committee on Miscellaneous Business:

WHEREAS, The following resolutions have been unanimously adopted by the House of Delegates of the Tennessee State Medical Association, to wit:

Resolved: That the delegates of the Tennessee State Medical Association to the annual meeting of the American Medical Association, to be held in Atlantic City on June next, are hereby instructed to vote for, and to use their earnest efforts to secure an honorarium or pension of not less than $100 a month for the former secretary of the Association, William Riddle Atkinson, of Pennsylvania, in recognition of his long and faithful services in the interest of the Association:

Therefore, be it

Resolved: By the House of Delegates of the American Medical Association, that it is hereby recommended to the Board of Trustees that an annuity of one hundred dollars a month be given to Dr. William Biddle Atkinson, of Pennsylvania, in consideration of his long, faithful and valuable services to this Association.

The resolutions were seconded by Dr. C. E. Cantrell, Texas.

On motion of Dr. A. T. McCormack, Kentucky, the resolution was laid on the table.

Resolution Endorsing the Plan of the George Washington Memorial Association

DR. WILLAM H. WELCH, Maryland, introduced the following resolution, which was endorsed by DR. JOHN A. WYETH, New York:

Resolved: That the American Medical Association, assembled in annual session, gives its hearty approval to the plan of the George Washington Memorial Association to raise a fund for the erection in the city of Washington of a memorial building to our first president, which shall furnish a suitable home and meeting place for national and international patriotic, scientific, medical, educational and similar organizations.

The need of such a building is recognized as urgent, as was demonstrated especially by the experience of the recent International Congress on Tuberculosis. At present the larger national and international societies can meet in Washington, if at all, only under most unsatisfactory conditions. The nation's tribute to George Washington could find no more useful and appropriate form of expression than in a building in the capital of the nation dedicated to the service contemplated in the plans of the George Washington Memorial Association.

The resolution was referred to the Reference Committee on Miscellaneous Business.

Draft of Model Law to Regulate the Practice of Medicine

DR. G. WYETH COOK, District of Columbia, offered the following, which was referred to the Reference Committee on Legislation and Political Action:

Resolved: That the Committee on Medical Legislation be and hereby is instructed to prepare and submit immediately to each state and territorial organization forming a part of this Association, and to each state and territorial medical licensing board, the draft of a model law for the regulation of the practice of medicine, and to obtain from said organizations and boards all possible criticisms, suggestions and advice with respect thereto and with respect to the laws now regulating the practice of medicine in the several states and territories to which said organizations and boards are related.

That said committee be and hereby is further directed to report to the Association at its meeting in 1910 the draft of a model law for the regulation of the practice of medicine, which can be adopted or used as the basis of such legislation by the several states and territories, with a brief in support of the bill so reported.

That said committee be and hereby is empowered to employ counsel at a cost to be fixed by the boards of trustees, to aid it in effecting the bill which it is especially required to report.

Formation of Physicians' Mutual Aid Society

DR. G. MCGOWAN, California, offered the following preamble and resolution:

WHEREAS, The House of Delegates of the Medical Society of the State of California has instructed its delegates to this body to recommend to the American Medical Association the consideration of the formation of a Physicians' Mutual Aid Society, patterned after that of the British Medical Association; therefore we, the aforesaid delegates of the Medical Society of the State of California, do present the following:

Resolved: That the Trustees of the American Medical Association be requested to consider the aforesaid undertaking and report on the same to the House of Delegates.

H. BERT ELLIS,
O. D. HAMLIN,
G. MACGOWAN.

This resolution was referred to the Board of Trustees.

Resolution of Thanks to Dr. Rupert Blue

DR. G. MACGOWAN, California, likewise presented the following with reference to the bubonic plague:

WHEREAS, At a very recent date the United States was threatened with a general invasion of that terrible disease, destructive both to life and to commerce, the bubonic plague, by its having obtained apparently a permanent foothold in California, but more particularly in the city and county of San Francisco, and

WHEREAS, By his diplomatic efforts in obtaining the good will and active assistance of the legislative and commercial bodies and the general public of the State of California, and by effective organization and skillful and tireless application of scientific measures for the discovery and isolation of all cases and the destruction of or suppression of its common me[illegible] Surgeon Rupert Blue, of the Public Health [illegible] vice, has deserved and received at the hand[illegible] of the State of California a resolution of [illegible] valuable services, its house of delegates has instructed its delegates to the American Medical Association to present to the House of Delegates of the American Medical Association a request for the passage of a similar resolution of thanks and commendation to the said Rupert Blue, surgeon of the Marine-Hospital Service.

H. BERT ELLIS,
GRANVILLE MACGOWAN,
O. D. HAMLIN.

Referred to Reference Committee on Miscellaneous Business.

Communication from the Section on Surgery and Anatomy

DR. JOHN T. BOTTOMLEY, Section on Surgery and Anatomy, presented the following matters, which were, on motion of Dr. Cantrell, referred to the Reference Committee on Sections and Section Work:

Commission on Anesthesia

It is suggested by the Section on Surgery and Anatomy, which I have the honor of representing in this body, that I call to your attention the importance of continuing the work of the Commission on Anesthesia and the need of an appropriation for the continuance of this work.

This is a matter in which the whole profession has a very personal interest, a matter to which we have, perhaps, given less attention in a purely scientific way than our brothers across the Atlantic.

The recent report made to the German Surgical Congress was a splendid piece of work.

The work of the British Commission is equally well known.

We should do our proportionate and fitting share in this country which offers such a tremendous amount of material.

(a) Scientific examination in the way of original research work should be carried on by properly trained men.

(b) Statistics should be gathered and tabulated.

(c) Reported fatal cases should be thoroughly investigated.

(d) Many sub-committees at various centers should be appointed.

This is a work worthy of such an organization as the American Medical Association and the question of granting an appropriation for the continuance is respectfully presented for your consideration.

Name of Section on Surgery and Anatomy

It is suggested by the Section on Surgery and Anatomy that, if it is the pleasure and will of the House of Delegates, the words "and Anatomy" be dropped from the present official title for the following reasons:

(a) The anatomists of the country have a very live organization, composed almost entirely of teaching anatomists and almost all their work is reported to that body. Practically no anatomic communications are made to our Section.

(b) The combination of practicing surgeon and teaching anatomist can be truly said to exist no longer. This was not the fact in the days when the Section was established. The teaching anatomist of today gives his whole attention to his work and has naught to do with practice.

(c) The present title for the above reasons is a misnomer. It is an injustice to the anatomists.

(d) More papers are now offered to the Surgical Section than it can accept. If anatomic communications were offered and accepted, time would be demanded where there is really none to be given.

Vice-Chairmen and Honorary Secretaries

The Section on Surgery and Anatomy presents for your consideration the question of increasing by two the number of Vice-Chairmen and of appointing two honorary secretaries of the larger sections (600 or more members—such as Practice of Medicine, Obstetrics and Diseases of Women, and Surgery and Anatomy).

These Sections are constantly growing. Many men from all sections of the country deserve and should receive some recognition of their zeal and ability. There are not enough active officerships to go around.

The suggested plan would permit the recognition of all parts of the country in the appointment of section officers and we believe would stimulate and increase interest in the work of the sections.

The Patenting of Surgical Instruments

DR. EUGENE C. HAY, Arkansas, offered the following, which was referred to the Reference Committee on Constitution and By-laws:

Resolved: That the clause of the Principles of Ethics, Chapter II, Article I, Section 8, relating to the prohibition of patenting of surgical instruments by members of the medical profession, be changed, omitting surgical instruments from such prohibition.

Name of Section on Cutaneous Medicine and Surgery

The following resolution was read and referred to the Reference Committee on Sections and Section Work:

To the House of Delegates of the American Medical Association:

The following resolution was presented and unanimously carried in the Section on Cutaneous Medicine and Surgery:

Resolved: That it is the sense of this Section on Cutaneous Medicine and Surgery that in the event a Section on Urology is established, it should not specifically include syphilis:

That, while syphilis more nearly belongs to dermatology than to any other specialty, it is a constitutional disease, which is an important part of many specialties, it certainly does not belong peculiarly to urology.

The General Secretary read a communication inviting the Association to hold its next annual Session in St. Louis.

Dr. G. MacGowan, California, extended an invitation to the House for the Association to hold its next annual Session in Los Angeles.

Those invitations were referred to the Committee on Transportation and Place of Session.

Report of Reference Committee on Hygiene and Public Health

The Committee on Hygiene and Public Health, to which was referred the report of the Special Committee on Ophthalmia Neonatorum, recommends approval of the organized efforts suggested for the prevention and control of ophthalmia neonatorum and regards the excellent and exhaustive work shown in the report as worthy of especial commendation.

Improvement of Status of Personnel of U. S. Public Health and Marine-Hospital Service

The General Secretary read the following, which was referred to the Reference Committee on Legislation and Political Action:

RESOLVED, That the Association respectfully recommends to the United States Senate and House of Representatives the enactment of legislation for the improvement of the status of the personnel of the Public Health and Marine-Hospital Service, so that it will be put on a parity as to compensation, with the other medical services of the government.

On motion of Dr. R. R. Campbell, Section on Cutaneous Medicine and Surgery, the House then adjourned until 2 p. m., Wednesday.

Fourth Meeting, Wednesday, June 9

The House of Delegates met at 2 p. m., and was called to order by the President.

On motion of Dr. Cantrell, the roll-call was dispensed with.

The minutes were read, amended and then approved.

THE PRESIDENT: The Chair yesterday overlooked putting the motion to refer the Report of the Reference Committee on Miscellaneous Business in regard to the Davis Memorial to the Board of Trustees. We will now take this matter up.

It was moved, seconded and carried that this matter be reconsidered.

It was then moved and seconded that the Report of the Reference Committee on Miscellaneous Business, regarding the Davis Memorial, be referred to the Board of Trustees, with the recommendation that a three-year limit be imposed for the collection of this $20,000. Carried.

DR. H. BERT ELLIS, California, Chairman, presented an additional Report from the Committee on Credentials.

Report of Committee on Sections and Section Work

DR. J. HENRY CARSTENS, Section on Obstetrics and Diseases of Women, presented the following Report of the Reference Committee on Sections and Section Work:

Your committee begs leave to report that the request of the Section on Surgery and Anatomy to strike out the latter part of the name be granted, and that hereafter it be known as "Section on Surgery."

It was moved, seconded and carried that this be adopted.

That the name of the Section of Cutaneous Medicine and Surgery by changed to "Section on Dermatology."

It was moved by Dr. Carstens, and seconded by Dr. Cantrell, that this be adopted. Carried.

Your committee, furthermore, reports in reference to the question of anesthesia, we recommend that the President of this Association appoint a special committee on anesthesia to be composed as follows: One member of the Section on Surgery, one member of the Section on Obstetrics and Gynecology, one member of the Section on the Practice of Medicine; one member of the Section on Ophthalmology; and one member of the Section on Pharmacology and Therapeutics.

That this report be referred to the Board of Trustees with the request that funds be appropriated to carry on the necessary original investigations.

It was moved, seconded and carried that this be adopted.

Your committee further reports that a Section on Urology and Venereal Diseases be created when one hundred members of the Association petition for the same.

All of which is respectfully submitted.

J. H. CARSTENS, Chairman.

On motion this report was adopted.

Report of the Reference Committee on Legislation and Political Action

DR. WALTER B. DORSETT, Missouri, Chairman, presented the Report of the Reference Committee on Legislation and Political Action, which was adopted section by section:

The Report of the Committee on Legislation, which was referred to this committee, contains the report of progress in the various fields of their activity and shows a most commendable work and deserves the hearty support and cooperation of the House of Delegates and the entire membership of the Association.

The following recommendations, in our opinion, should be emphasized and endorsed by the House of Delegates.

NATIONAL PUBLIC HEALTH DEPARTMENT

Resolved, That the American Medical Association re-affirms its previously and repeatedly declared attitude in favor of the organization of all existing national public health agencies, into a single national public health bureau, and that it hails with satisfaction the assurance of President Taft, that he will recommend legislation, looking to that end.

AMENDMENTS TO THE NATIONAL FOOD AND DRUGS ACT

Resolved, That the American Medical Association respectfully urges on the Congress the necessity of amending the National Food and Drugs act, in the following particulars, viz.,

1. To prohibit, absolutely and unqualified, the use of benzoate of soda and similar preservatives in the preparation and preservation of foods destined for interstate commerce.
2. To provide for a system of federal inspection of all establishments engaged in the preparation of foods destined for interstate commerce, such inspection having for its special object (a) the enforcement of sanitary cleanliness in such establishments; (b) the prevention of employment in them of persons afflicted with contagious or infectious diseases; (c) the prohibition of the use of preservatives such as the benzoate of soda; and (d) the prevention of the admission into interstate commerce of unclean and offensive waste products which now, by the use of such preservatives are branded as food stuffs and sold as such to the people.

Resolved, That the Association respectfully recommends to the United States Congress the enactment of legislation for the improvement of the status of the personnel of the public health and Marine-Hospital Service as set forth in Senate Bill 1968.

NAVY DEPARTMENT BILLS

Resolved, That the American Medical Association cordially approves and urges the prompt enactment into law of measures relating to the Navy Department as follows:

1. The Bill "To reorganize and increase efficiency of the Hospital Corps of the United States Navy." (Senate 1017; House 6184; Sixtieth Congess.)
2. The Bill "Authorizing the appointment of Dental Surgeons in the Navy." (Senate 1015; House 6741; Sixtieth Congress.)
3. A Measure to provide for a Medical Reserve Corps of the Navy in accordance with the clause relating to that subject in the Navy Appropriation Bill for 1908.
4. A Measure to provide for two Hospital Ships for the Navy at a cost not to exceed $3,000,000.

CONFERENCE ON UNIFORM STATE MEDICAL PRACTICE LAW

Resolved, That the American Medical Association cordially approves the proposition advanced by the Committee on Medical Legislation to call a general conference to be devoted to the discussion of the essentials of a uniform medical practice act of the States, such conference to consist of,

(a) The Committee on medical legislation,
(b) The national legislative council,
(c) The Council on Medical Education of the American Medical Association.
(d) All officers and members of State examining boards,
(e) All members of State committees on medical legislation,
(f) Representatives of all Medical Colleges, and
(g) and such other persons as the Committee may see fit to invite.

This recommendation covers the suggestion in the resolution offered by Dr. George W. Cook of District of Columbia.

The effort of the Legislative Committee to raise funds for the relief of the families of those who have died in the medical service of the country is hereby indorsed and all members of the American Medical Association are urged to contribute.

This committee approves the action, already taken, of the Committee on Medical Legislation for the relief of Mrs. Carroll.

It recommends the efforts of the committee in the direction of uniform food and drug legislation, and urge continuance until all states adopt practically the same laws. It also endorses the efforts of the Bureau on Medical Legislation toward the adoption of uniform state laws on vital statistics.

Report of the Committee on Patents and Trademarks

This committee has done a large amount of work and gathered much useful information on this complicated subject, yet wisely refrains from any recommendation of specific action by the House of Delegates at this time, but suggests that further investigation be made to ascertain if anything can be done to correct existing abuses.

The committee recommends that the present committee be continued for another year. It also recommends that the resolutions by Dr. Ireland concerning the use of the Geneva Red Cross as our insignia and the resolution of Dr. Samuel Wolfe, of Pennsylvania, concerning the selection of a suitable one for this association be referred to a special committee of five to be appointed by the President, who shall report at the next annual meeting.

While fully appreciating the magnitude of the work done in San Francisco and the skill with which it was executed, your committee considers that it is not desirable to single out any one officer for special mention, no matter how distinguished his service may have been.

On motion, the report was adopted as a whole.

Report of Reference Committee on Hygiene and Public Health

The following report was presented by Dr. G. B. Young, U. S. P. H. and M.-H. S., a member of the Reference Committee on Hygiene and Public Health:

The Committee on Hygiene and Public Health, to which was referred the Report of the Special Committee on Ophthalmia Neonatorum, recommends approval of the report and of the organized efforts suggested for the prevention and control of Ophthalmia *Neonatorum*, and regards the excellent and exhaustive work shown in the report as worthy of especial commendation.

It also recommends cooperation on the part of state and municipal boards of health and other authorities in securing the widest dissemination of the facts and recommendations presented by the committee by publication and otherwise.

It further recommends that the committee be continued.

William N. Wishard, Chairman.
O. J. Brown.
G. B. Young.

On motion of Dr. G. L. Taneyhill, Maryland, seconded by Dr. Charles S. Bacon, Illinois, the report was adopted.

Report of Reference Committee on Amendments to Constitution and By-Laws

Dr. H. Work, Colorado, Chairman, presented the following report of the Reference Committee on Amendments to the Constitution and By-Laws:

To the House of Delegates of the American Medical Association:

The Reference Committee on Amendments to the Constitution and By-Laws, begs leave to recommend that on page 16, Chapter IX, Section 1, the following amendments be made:

Add to the section the words, "during the intervals between the sessions of the House of Delegates, the Board of Trustees shall supervise the action of committees constituted by action of the House."

On page 18, Chapter X, Section 1, add to the section the words, "any of these committees, acting during the intervals between the sessions of the House of Delegates, shall be subject to the Board of Trustees."

It also recommends the continuance of the Committee on Uniform Regulation of Membership, consisting of Thomas McDavitt, Walter Steiner, and Frederick R. Green, and that the personnel of this committee be increased to seven by the appointment of four additional members who are secretaries of state medical societies.

That this committee be instructed to formulate and report back recommendations relating to matters of discipline in county and state societies at the next annual meeting.

Your committee would also urge that this House of Delegates recommend to its constituent county and state societies that the fiscal society year be made to correspond with the calendar year for the purpose of securing uniformity and simplifying the keeping of accounts of the Association.

Respectfully submitted,
J. Shelton Horsley.
F. Paschal.
Floyd M. Crandall.
George W. Guthrie.
Hubert Work, Chairman.

On motion, the report was adopted.

Report of Reference Committee on Miscellaneous Business

Dr. Thomas A. Woodruff, Section on Ophthalmology, Chairman, read the report of the Reference Committee on Miscellaneous Business. The report was considered section by section and adopted:

PHYSICIANS' MUTUAL AID ASSOCIATION

Your committee respectfully recommends that the House of Delegates refer back to the California State Medical Association the resolution relative to the Physicians' Mutual Aid Society for more definite plans of purpose as the committee has no data on which to formulate an intelligent report.

REPORT ON THE REPORT OF THE COMMITTEE ON SCIENTIFIC RESEARCH

Your committee, recognizing the valuable work done by the Committee on Scientific Research and the results already accomplished, recommends that their request for a yearly appropriation of $1,000 be granted.

GEORGE WASHINGTON MEMORIAL ASSOCIATION

With reference to the resolution endorsing the plan of the George Washington Memorial Association, your committee recommends that said resolution be approved.

COMMITTEE ON NOMENCLATURE AND CLASSIFICATION OF DISEASES

The Committee on Nomenclature and Classification of Diseases is to be congratulated on the excellence of the work contained in their report. The report indicates that a careful study has been made of all the proposed changes, and it is recommended that the suggestions offered be concurred in, and that the committee be continued, and that the Board of Trustees be asked to appropriate the necessary funds for the continuance of the work of the committee.

Thomas A. Woodruff,
Arthur M. Hume,
J. H. Pierpont,
J. D. Griffith,
J. Champlin.

Report of Reference Committee on Reports of Officers

DR. ALEXANDER R. CRAIG, Pennsylvania, presented the report of the Reference Committee on Reports of Officers, as follows:

To the House of Delegates of the American Medical Association:

The report of the Committee on Organization and the address of the President have been referred to the Reference Committee on Reports of Officers and have been considered by that committee. The Reference Committee now reports to the House that the report made by the Committee on Organization is, in their judgment, so clear and comprehensive as to leave nothing for this House to do other than to approve the report.

In the address of the President there is but one suggestion to the House, and that is the matter of the erection in the National Capitol of a memorial to medical officers who gave up their lives during the War of the Rebellion.

The Reference Committee recommends that this movement be endorsed by the House and that there be appointed by the President of the Association a central committee of five members; that this committee be empowered to appoint a general committee, adding to their number of five one from each state and territory and the District of Columbia, and one from the regular army, one from the navy and one from the Public Health and Marine-Hospital Service; and, in addition, two honorary chairmen are to be appointed by the President of this Association.

It is recommended that the Board of Trustees be requested to appropriate to the use of this committee a sum not to exceed one hundred dollars, which sum or such part thereof as shall have been used by the committee, shall be returned to the Association when the subscriptions obtained by the committee shall amount to five hundred dollars.

On motion the report was adopted.

Report of the Director of Postgraduate Study

The report of the Director of Postgraduate Study was then presented as follows:

To the Members of the House of Delegates of the American Medical Association:

I have the honor to submit the following report of the progress of the work of the course of postgraduate study during the past year.

As stated in the report of one year ago, the outline of study for the second year was issued in one pamphlet instead of two, and consisted of ten months rather than twelve, as the first year. This provides for a vacation of two months each year, which is desired by most societies. The first edition of the outline, 5,000 in number, was printed in blank form, making an 80-page pamphlet. Most societies used this by filling in the time and dates of meetings and the names of teachers for the different topics; however, several societies desiring a large number of outlines, had them printed by *The Journal*. There was distributed with this blank outline a pamphlet describing the plans and details of the course and giving suggestions as to the use of the outline in the society or as a reading course of home study.

The plan for the second year, to begin the first of September, was carried out by beginning the distribution of the outlines the middle of August, and printing in *The Journal* each week the elaboration of the topics for the weekly meeting two or three weeks hence.

The first edition of 5,000 was completely exhausted in five months, requiring a new edition by the first of February, 1909. In this new edition the descriptive pamphlet mentioned above was printed with the outline, making one pamphlet rather than issuing them separately as was done before. This edition consisted of 4,000 outlines in blank form and 1,000 of the regular Warren County, Kentucky, program for the second year. It was found as a practical matter the first year that those not familiar with the course of study could understand it much more readily by having a complete program at hand, so this year the Warren County programs are regularly distributed with the blank outlines.

It is gratifying to report the interest that has been shown in the course, the number of societies that have taken it up this year, 200, being double that of last year. We note that about 85 per cent. of the societies which followed the course last year have taken it up again this year, showing that they feel that the time and study expended have been worth while. Many secretaries have written to attest the social, scientific and financial benefits to be derived from a closer personal association in the meetings.

As to the new societies interested in the work, several of them mention the fact that it has been brought to their attention by the outlines appearing in *The Journal*, or in one of the State journals, but by far the greater number of requests have come directly from the societies visited by Dr. J. N. McCormack, showing that one familiar with the work and its possibilities is best able to arouse an interest and enthusiasm in it. It may be mentioned further that many Councilors, particularly those visited by Dr. McCormack, have been able to inaugurate the work in quite a number of societies.

The adaptability of the course to the needs of the large society as well as the small one is shown by the fact that many societies in the larger towns and cities, even in some of the medical teaching centers, have been using the outline in the regular society work, following the weekly and monthly programs.

It is worthy of note that those states doing the most work last year, viz., Pennsylvania, Indiana, West Virginia and Kentucky, are again showing the greatest increase in the number of societies following the course. It may also be mentioned that the requests for the literature have not been confined to the states but have come from Panama, Canada, and China as well. Quite a number of individuals have been using the outline as a guide in a reading course of study when on account of distance and for other reasons they were unable to attend the regular meetings.

The outline for the third year is now in preparation and will soon be ready for the printer, so that it may be distributed by the first of August, thus allowing societies to take up the third year of the cycle by the first of September.

The progress of the work during the year indicates that the course of study is in many societies meeting the needs fully, bringing the members of the profession together in a way that will lead, by mutual understanding and cooperation, to the greatest benefits possible. If this particular line of work is to be a real factor in the organization and education of the graduate physician of the country as is desired by the Department of Organization, and if a suggestion on the part of the director is permissible, it would be that men experienced in this course of study be requested to visit other societies and aid in the inauguration of the work, as was mentioned in the report of last year. Very respectfully,

JNO. H. BLACKBURN, Director.

On motion, the report was accepted as printed.

Supplementary Report of the Committee on Organization

DR. J. N. MCCORMACK, Kentucky, read a supplementary report of the Committee on Organization, as follows:

To the House of Delegates:

Your committee, to which was referred the preamble and resolution of Dr. W. H. Sanders [presented at the Chicago session, 1908, see reprint page 34], looking to the creation of a committee to revise the constitution and the forms of by-laws of this association, the state associations and the county societies, for the purpose of securing a more uniform, complete and coherent organization of the entire profession, has carefully considered the same in connection with the report made yesterday by the Committee on the Uniform Regulation of Membership, and respectfully recommends that this entire subject be referred to this committee to which shall be added five members, four of whom shall be secretaries of state associations, to be selected by the President, and that this enlarged committee be charged with the work of revision indicated by Dr. Sanders and suggested by the committee above mentioned.

On motion of Dr. Arnold the report was adopted.

Report of the Committee on Triennial Reapportionment

DR. J. F. PERCY, Illinois, chairman, read the report of the Committee on Triennial Reapportionment, as follows:

The membership of the American Medical Association in 1906 was 58,859. The membership in 1909 was 67,332. A gain, up to May 1, 1909, of 8,473.

The Constitution provides for a maximum membership in this House of Delegates of 150. On a basis of 650 the constituent state societies are given 133 delegates, divided as follows:

	Members, 1906.	Delegates, 1906.	Members, 1909.	Delegates, 600.	Delegates, 650.	Changes.
Alabama	1,370	3	1,650	3	3	
Arizona	104	1	120	1	1	
Arkansas	766	2	910	2	2	
California	1,783	3	1,861	4	3	
Colorado	716	2	739	2	2	
Connecticut	780	2	872	2	2	
Delaware	104	1	103	1	1	
Dist. of Columbia	484	1	540	1	1	
Florida	281	1	285	1	1	
Georgia	1,020	2	1,200	2	2	
Idaho	75	1	97	1	1	
Illinois	4,087	7	5,265	9	9	+2
Hawaii	63	1	63	1	1	
Indiana	2,109	4	2,587	5	4	

Iowa	1,719	3	1,850	4	3	
Kansas	1,202	3	995	2	2	—1
Kentucky	1,620	3	2,231	4	4	+1
Louisiana	746	2	1,069	2	2	
Maine	486	1	613	2	1	
Maryland	929	2	1,051	2	2	
Massachusetts	3,044	6	3,292	6	6	
Michigan	1,966	4	1,892	4	3	—1
Minnesota	1,105	2	1,214	3	2	
Mississippi	930	2	966	2	2	
Missouri	2,235	4	2,851	5	5	+1
Montana	175	1	165	1	1	
Nebraska	714	2	863	2	2	
Nevada	53	1	92	1	1	
New Hampshire	403	1	520	1	1	
New Jersey	1,228	3	1,400	3	3	
New Mexico	123	1	188	1	1	
New York	6,378	11	6,665	12	11	
North Carolina	1,242	3	1,046	2	2	—1
North Dakota	207	1	301	1	1	
Ohio	3,482	6	3,962	7	7	+1
Oklahoma	676	2	937	2	2	
Oregon	332	1	370	1	1	
Pennsylvania	4,574	8	5,218	9	9	+1
Philippine Islands	....	1	94	1	1	
Rhode Island	322	1	381	1	1	
South Carolina	659	2	731	2	2	
South Dakota	245	1	275	1	1	
Tennessee	1,055	2	1,377	3	3	+1
Texas	2,690	5	3,100	6	5	
Utah	130	1	188	1	1	
Vermont	416	1	395	1	1	
Virginia	1,413	3	1,555	3	3	
Washington	507	1	763	2	2	+1
West Virginia	597	1	795	2	2	+1
Wisconsin	1,359	3	1,500	3	3	
Wyoming	62	1	135	1	1	
	58,859	127	67,332	141	133	

To the above are to be added the delegates from Sections, twelve in number, and three from the government Medical Service, making a total of 148.

Your committee has verified the official reports from the secretaries of the constituent state societies.

SUMMARY

No changes in apportionment in forty states.

Increase:		
Illinois, 7 to 9	2	
Kentucky, 3 to 4	1	
Missouri, 4 to 5	1	
Ohio, 6 to 7	1	
Pennsylvania, 8 to 9	1	
Tennessee, 2 to 3	1	
Washington, 1 to 2	1	
West Virginia, 1 to 2	1	
		9
Decrease:		
Kansas, 3 to 2	1	
Michigan, 4 to 3	1	
North Carolina, 3 to 2	1	
		3
Net gain over 1906		6

MEMBERSHIP OF HOUSE OF DELEGATES FOR 1910-11-12

Constituent State Associations	133
Sections, A. M. A.	12
Government Medical Services	3
	148

Respectfully submitted,

J. F. PERCY, Chairman,
E. J. GOODWIN,
O. J. BROWN,
G. H. SIMMONS.

On motion, the report was adopted.

Report of the Board of Trustees to the House of Delegates on the Report of the Board of Public Instruction on Medical Subjects

DR. WILLIAM H. WELCH, Maryland, Chairman, presented the following report of the Board of Trustees on the report of the Board of Public Instruction on Medical Subjects:

We desire to express our appreciation of the value of the work thus far undertaken by the Board of Public Instruction on Medical Subjects, as outlined in its report, and of the importance of the field covered by this board. We recognize that unusual difficulties attend the complete development of a satisfactory plan to instruct the public in fundamental matters relating to individual and public health, but the object to be attained is worthy of the best efforts of the profession. The general plan of procedure contemplated by the board, so far as it has been developed, seems to be commendable. We believe that the establishment of the Auxiliary Board and the efforts to secure the cooperation of State and County Societies give promise of increased usefulness to the activities of the Board. We commend especially the plan to render available to these societies, as well as to appropriate committees and individuals, suitable pamphlets and literature which will be of service for distribution for the preparation of courses of popular lectures, and similar purposes. It is the desire of the Trustees to encourage and support the work of the Board of Public Instruction in the future, as we have done in the past. At the February meeting of the Board of Trustees the amount then asked for by the Board of Public Instruction, namely, $2,000, was granted.

WILLIAM H. WELCH, Chairman.

It was moved, seconded and carried that the report be adopted.

The Report of the Committee on Awards in the Scientific Exhibit

Your committee recommends that the following awards be made:

1. Diplomas of Honor for exhibits of superior merit.
   (a) American Pharmaceutical Association.
   (b) Dr. Emil Beck.
   (c) Jefferson Medical College.
   (d) Laboratory of St. Mary's Hospital, Rochester, Minn
   (e) Philadelphia Roentgen Ray Society.
   (f) University of Maryland.
   (g) University of Pennsylvania.
   (h) Philadelphia Polyclinic.
   (i) Hartford Association for Prevention of Tuberculosis.
   (j) New York Charity Organization Society.
2. Gold Medal for best exhibit of research work.
   (a) New York Lying-in Hospital.
3. Gold Medal for best tuberculosis exhibit according to specifications.
   (a) Indianapolis Medical Society.

Honorable mention is made of the excellent exhibit of the New York State Department of Health.

Respectfully submitted,

Committee, LEWELLYS F. BARKER, Chairman,
WILLIAM J. MAYO,
HENRY A. CHRISTIAN.

On motion, the report was adopted.

Amendment to the By-Laws

The following amendment to the by-laws was introduced by Dr. C. L. Wheaton, Section on Hygiene and Sanitary Science:

The Council on Public Health shall consist of five members. One member shall be elected to serve for one year, one for two years, one for three years, one for four years and one for five years. Thereafter, one member shall be elected each year to serve five years. The Council shall organize, shall elect a Chairman and Secretary and shall adopt such regulations for the government of its actions as it deems expedient. It shall expend money or contract financial obligations only as shall be authorized in writing by the Board of Trustees.

The functions of the Council on Public Health shall be:

1. To make such original investigation pertaining to public health subjects as it may deem advisable.
2. To supervise the publication of information relative to sanitary science and public health.
3. To act in an advisory capacity and to cooperate with the public health department in the United States, national, state and municipal, when requested to do so by the proper officers.

On motion these amendments were referred to the Reference Committee on Legislation and Political Action.

Permanent Council on Sanitary Science Requested

The following resolution was introduced by Dr. C. L. Wheaton, Section on Hygiene and Sanitary Science, and was referred to the Reference Committee on Hygiene and Sanitary Science:

Resolved, That the representatives of the Section on Hygiene and Sanitary Science, in the House of Delegates, be instructed to ask that a permanent Council on Sanitary Science be appointed by the American Medical Association; and that a special department on Sanitary Science be regularly maintained in the Journal of the Association, under the supervision of this Council.

Resolved, That the Association be requested to appropriate a suitable sum of money for the use of this Council.

In introducing the above resolutions, Dr. Wheaton stated that they were formulated by a committee of the Section on Hygiene and Sanitary Science, composed of Dr. H. B. Hemmenway, Dr. J. N. McCormack, Dr. H. M. Bracken and Dr. W. A. Evans.

Name of Section on Hygiene and Sanitary Science

The following resolution was introduced by Dr. C. L. Wheaton, Section of Hygiene and Sanitary Science:

DR. WHEATON: The following resolution proposed by Dr. F. A. Knopf of New York, and seconded by Dr. Marshall L. Price, of Maryland, was adopted by the Section on Hygiene and Sanitary Science, and I was instructed to present it to the House of Delegates of the American Medical Association:

Resolved, By the Section on Hygiene and Sanitary Science, that it is the sense of the Section that its name—Section on Hygiene and Sanitary Science—should be changed to that of Section on Preventive Medicine and Public Health.

On motion this resolution was referred to the Reference Committee on Sections and Section Work.

Tuberculous Physicians in Oklahoma

The following resolutions, introduced by Dr. C. L. Wheaton, Section on Hygiene and Sanitary Science, were proposed by Dr. S. A. Knopf and adopted by the Section on Hygiene and Sanitary Science of the American Medical Association.

On motion these resolutions were referred to the Reference Committee on Hygiene and Sanitary Science.

WHEREAS, The Section on Hygiene and Sanitary Science of the American Medical Association has learned with profound regret that the Board of Medical Examiners of the State of Oklahoma have decided no longer to grant licenses to practice to physicians afflicted with tuberculosis, and

WHEREAS, It has been sufficiently demonstrated that the clean, conscientious and trained consumptive is not a menace to his fellowmen, and

WHEREAS, It is well known that the scientific knowledge of tuberculosis has been vastly increased by physicians of the past and present who have been afflicted with tuberculosis, and

WHEREAS, The experience in this country and abroad has furthermore demonstrated that tuberculous physicians, more than any other class, have advanced the best methods of cure of tuberculosis and have been most active in the tuberculosis propaganda, be it

Resolved, That the Section on Hygiene and Sanitary Science of the American Medical Association deeply deplores the action of the Oklahoma State Board of Medical Examiners whereby tuberculous physicians desiring to practice in Oklahoma are deprived of this privilege because of their illness. Be it futher

Resolved, That this Section expresses the profound wish that the State Board of Medical Examiners of Oklahoma will withdraw this restriction and again open its hospitable state to all honorable physicians well qualified to practice though they may be afflicted with tuberculosis.

Amendment to Constitution

DR. ARTHUR T. MCCORMACK, Kentucky, offered the following:

Amend Article 4 of the Constitution by adding at the end of said Article, the words, "The House of Delegates, on application, may arrange for the recognition of constituent associations outside of, but adjacent to, the United States.

(To lie over until next year.)

Amendments to the By-Laws, Proposed to the House of Delegates, on June 9, 1909, by the Board of Trustees

DR. WILLIAM H. WELCH, Maryland, presented the following for the Board of Trustees:

A. Repeal Section I of Chapter I, Book I, entitled "Membership—How Obtained," and substitute the following:

"Section 1. Membership—How Obtained.—A member in good standing of the constituent association of the state in which he resides may become a member of the American Medical Association, by presenting to the General Secretary: (1) Satisfactory evidence of the above qualifications; (2) written application for membership on the prescribed form; (3) the payment of the annual assessment and the subscription to THE JOURNAL of the American Medical Association. Commissioned medical officers of the United States Army, United States Navy and United States Public Health and Marine-Hospital Service shall be *ex officio* members; they shall not be required to pay the annual assessment, nor shall they receive THE JOURNAL of the American Medical Association unless on personal subscription."

B. Repeal Section 4 of Chapter I, Book I, entitled "Delinquency—Dues Must Be Paid" and substitute the following:

"Section 4. Delinquency.—Any member who shall fail to pay his annual assessment and subscription to THE JOURNAL for one year, unless absent from the country, shall be dropped from the roll of members, provided that due notice shall be previously given to the member by the General Secretary. Any member who has been suspended for non-payment shall be restored only when all his indebtedness has been paid."

C. In the last line of Section 1, Registration, of Chapter II, Book I, substitute for the word "dues" the following: "Assessment and subscription to THE JOURNAL."

D. Immediately following the Section and Chapters of Book IV, insert the following new book and chapter:

"Book V. Assessment and Subscription to THE JOURNAL.—Chapter XIV. The annual assessment for membership shall be one dollar; and the price of subscription to THE JOURNAL of the American Medical Association shall be four dollars for members and five dollars for non-members a year."

WILLIAM H. WELCH, Chairman.

On motion of Dr. E. J. Goodwin, Missouri, the amendments were referred to the Reference Committee on Constitution and By-Laws.

Care of Indigent Members

DR. EDWARD JACKSON, Colorado, presented the following resolution, which was referred to the Reference Committee on Miscellaneous Business:

WHEREAS, The physician disabled by sickness for the practice of his profession, is peculiarly dependent on the savings of earlier years of the assistance of others; yet can not have recourse to the ordinary agencies of charity, be it

Resolved, That the President of the American Medical Association appoint a committee of five members, who shall inquire into the desirability and practicability of the establishing under the auspices of the American Medical Association of a fund for the assistance of physicians disabled by sickness, and of a sanatorium for the treatment of such members of the association as may be afflicted with tuberculosis or similar diseases; such committee to report to the House of Delegates at the next annual meeting.

Enlightenment of the Public on Hygiene and Public Health

DR. WALTER B. DORSETT, Missouri, introduced the following resolutions, which were referred to the Reference Committee on Hygiene and Public Health:

As it is conceded that the profession generally needs enlightenment on the subjects pertaining to public health and quarantine matters, therefore, be it

Resolved, That it is suggested to the State Societies the advisability of occasionally including in their progress, papers concerning this subject by an officer of the United States Public Health and Marine-Hospital Service; and

Resolved, That the Surgeon-General of the United States Public Health and Marine-Hospital Service be urged to cooperate in this matter be detailing an officer of officers to present papers on the subject to such State Societies as may call on him for such cooperation.

Reorganization of the Judicial Council Proposed

DR. D. C. BROWN, Connecticut, presented the following resolution, which was referred to the Reference Committee on Amendments to the Constitution and By-Laws:

Two years ago the House of Delegates decided that it was unwise to make the ex-Presidents of the American Medical Association *ex officio* members of the House of Delegates.

Year after year this House elects for the American Medical Association a man of national mark, strong professionally, experienced in the conduct of association affairs, and places him in the one unique position in the Association where he may have a comprehensive grasp of all of its affairs, and just when he has had time to observe the workings of the various branches of organic work and before he has had time and an untrammeled opportunity to utilize the judgments formed by such observation, his term as President expires and the Association is deprived of his services when they are ripest and freed from sectionalism.

In order that this may, to some extent, be obviated without disturbing the representation as at present existing in the House, the following resolution is presented: Be it

Resolved, That the Committee on Amendments to Constitution and By-Laws and the Judical Council be made one Committee, known as the Judicial Advisory Committee, with its duties as defined in the By-Laws Book 3, Chapter 10, Sections 4 and 11, d, 6; and with the added function, that on request of the House it shall act in joint session with any other Reference Committee, on matters that seem to require it. This Committee to be composed of the five last retiring Presidents of the Association, each year the senior ex-president to be retired and the retiring President added to the Committee. This Committee to be in session or available for session when the House of Delegates is in session, to receive all matters that may be referred to it, to have the privilege accorded to other committees, of the floor of the House during the discussion of any matter presented by them but shall not be entitled to a vote in the House, and shall not be entitled to a seat at any time but as above specified.

Associate Members

DR. H. A. CHRISTIAN, delegate from the Section on Pathology and Physiology, presented a list of men recommended for associate membership, and on motion the recommendation was concurred in.

At a meeting of the Section on Pathology and Physiology, held June 8, 1909, it was moved that the following names be recommended to the House of Delegates for associate membership in the American Medical Association, as investigators in the field of medicine, who are not engaged in the practice of medicine: Simon Flexner, Rockefeller Institute, New York; Yandell Henderson, Yale University; George T. Kemp, Champaign, Ill.

Advance Reports of Officers

DR. JULIUS C. BIERWITH, New York, offered the following resolution:

Resolved, That the General Secretary be requested to send annual reports to officers and committees and the reports of special committees to the officers and members of the House of Delegates and Trustees at least two weeks before the annual meeting.

On motion this was referred to the Board of Trustees.

Payment of Annuities

DR. WILLIAM L. ESTES, Pennsylvania, offered the following preamble and resolution, which were referred to the Reference Committee on Miscellaneous Business:

WHEREAS, It is of great importance to the American Medical Association to safeguard the expenditure of its funds and carefully scrutinize any movement toward the establishment of any precedent for the payment of pensions or annuities; therefore, be it

Resolved, That no proposition or resolution advocating the payment of a pension or annuity to any member or former member of the Association be established by the House of Delegates without the previous consent and endorsement of the delegation of the State Society to which the proposed beneficiary is or was a member.

On motion, the House adjourned until Thursday, 2 p. m.

Fifth Meeting—Thursday Afternoon, June 10

The House met at 2:30 p. m. and was called to order by the President.

The roll was called.

The minutes were read.

Dr. Frank Billings, Illinois, was granted permission to insert in the minutes in reference to the Davis Memorial Fund, the amount that is now, June 8, 1909, in the hands of the Davis Memorial Treasurer, $2,463.11.

Dr. Charles S. Bacon, Illinois, at the request of the Chairman of the Reference Committee on Legislation and Political Action, asked permission to incorporate Senate Bill 1968, instead of the bill of the Sixtieth Congress, which was specifically named in the report.

On motion, this request was granted.

The minutes, as amended, were then approved.

Election of Officers

The election of officers being in order, the President appointed as tellers Major Ireland, U. S. A., H. D. Arnold, Massachusetts, and J. H. J. Upham, Ohio.

The following officers were nominated, balloted for and duly elected:

President—Dr. William H. Welch, Baltimore, Md.

First Vice-President—Dr. Robert Wilson, Charleston, S. C.

Second Vice-President—Dr. Charles J. Kipp, Newark, N. J.

Third Vice-President—Dr. Alexander Lambert, New York City.

Fourth Vice-President—Dr. Stanley P. Black, Pasadena, Cal.

General Secretary—Dr. George H. Simmons, Chicago, Ill.

Treasurer—Dr. Frank Billings, Chicago, Ill.

Trustees—Dr. C. E. Cantrell, Texas (one year, to fill vacancy caused by death of Dr. Happel); Dr. M. L. Harris, Chicago, Ill.; Dr. C. A. Daugherty, South Bend, Ind.; Dr. William T. Councilman, Boston, Mass.

At this juncture the President-elect was escorted to the platform by Drs. Arthur T. McCormack and W. W. Grant.

Dr. W. H. Welch, the President-elect, was received with great applause. He said: I do not wish to interrupt the proceedings. I am glad of the opportunity of thanking you for the great honor you have done to me. It is not an honor which I sought, but it is an honor which I can assure you I appreciate very much. There is no higher honor in the gift of the profession of this country. There is no higher honor that can come to any member of our profession in this country, and I prize it especially on account of the opportunity to continue to serve the Association. I shall eventually enter on my duties as Acting President with no little experience of the needs of this Association, and I need not assure you of the devotion and loyalty which I have for the Association. I consider that this Association has possibilities of development worthy of the highest endeavor of every member of our profession. I know of no nobler work in which any member of our profession can engage than that of furthering the interests of this Association. I thank you with all my heart. (Applause.)

Report of the Committee on Transportation and Place of Session

Dr. M. L. Harris, Chicago, Chairman, stated that the committee had received three invitations for the next meeting. One from Niagara Falls, N. Y.; one from St. Louis, and one from Los Angeles, Cal. The one from Niagara Falls was simply a communication from a commercial club, and was not backed up by the profession in any way, and therefore had not received any special attention. The invitation from St. Louis comes from the local medical society, the Missouri State Medical Society, the commercial club, etc., accompanied by reports from hotels as to accommodations, halls for places of meeting, exhibits, etc. The invitation from Los Angeles likewise comes from the local profession, from the State Medical Society of California, and accompanied by reports of hotel accommodations, meeting places, etc.

The committee does not feel that it should assume the responsibility of deciding between these two places, St. Louis and Los Angeles, and that, therefore, the House should decide the matter.

The House of Delegates then took a vote in regard to the selection of place of meeting, with the result that St. Louis was chosen as the place for holding the next annual session.

Standing Committees, Etc.

The President: Our By-laws provide that the President shall nominate, and the House confirm, members of standing committees.

The Chair would nominate Dr. Charles A. L. Reed to succeed himself on the Committee on Medical Legislation.

On motion of Dr. J. D. Griffith, Missouri, the nomination was confirmed.

The President: The Chair nominates for the Council on Medical Education, Dr. A. D. Bevan, Chicago, to succeed himself.

On motion of Dr. G. B. Young, U. S. P. H. and M.-H. S., the nomination was confirmed.

The President: The Chair nominates for the two vacancies on the Board of Public Instruction on Medical Subjects, caused by the expiration of the respective terms of Drs. Howard A. Kelly and L. S. McMurtry, Dr. T. D. Coleman, Augusta, Ga, and Dr. James Ewing, Cornell Medical College, New York.

On motion, the nominations were confirmed.

ASSOCIATE MEMBERS

The following nominations for associate membership were read: From the Section on Hygiene and Sanitary Science, Dr. H. W. Hill, Minneapolis, Minn.; from the Section on Mental and Nervous Diseases, Dr. William A. White, Washington, D. C.

The following dental members were nominated:

Dr. William B. Dunning, New York City.

Dr. Frederick Lester Stanton, New York City.

Dr. Theodore D. Castro, Philadelphia, Pa.

Dr. George N. West, Chicago.

Dr. William C. Fisher, New York City.

Dr. Robert H. Strang, Bridgeport, Conn.

Dr. John E. Nyman, Chicago.

Dr. W. L. Van Buskirk, Scranton, Pa.

Dr. Arthur Zentler, New York City.

On motion of Dr. J. D. Griffith, Missouri, the nominees were elected.

COMMITTEE ON REVISION OF CONSTITUTION AND BY-LAWS

The President: There are five members to be added to the Committee on Revision of the Constitution and By-Laws. The Chair nominates Dr. W. H. Sanders, Alabama; Dr. J. H. J. Upham, Ohio; Dr. I. C. Chase, Texas; Dr. A. W. McAllester, Jr., Missouri; Dr. B. R. Schenck, Michigan.

On motion, the nominations were confirmed.

COMMITTEE ON ANESTHESIA

The President: The Chair appoints on the Committee on Anesthesia Dr. James G. Mumford, Dr. W. D. Haggard, Dr. Alexander Lambert, Dr. H. Gifford and Dr. H. C. Wood, Jr.

Report of Reference Committee on Sections and Section Work

Dr. Henry J. Carstens, Section on Obstetrics and Diseases of Women, read the following report of the Reference Committee on Sections and Section Work:

Your committee begs leave to report that the request of the Section on Hygiene and Sanitary Science be granted, and that the name of the Section be changed to "Section on Preventive Medicine and Public Health."

The request of the Section on Surgery, that the Vice-Chairmen be increased by two for each section be granted; hence, hereafter each section is to elect, besides the Chairman, a First Vice-Chairman, Second Vice-Chairman and Third Vice-Chairman.

On motion of Dr. Arthur T. McCormack, Kentucky, the report was adopted.

Membership in the Association for Medical Employés of the Government

Dr. L. M. Halsey, New Jersey, introduced the following preambles and resolution, which was referred to the Committee on Constitution and By-Laws:

Whereas, The District of Columbia Medical Association refuses to admit to its membership medical employés of the United States Government, and

Whereas, Many deserving physicians and scientists are, thereby, excluded from entering the American Medical Association by the ordinary channels, and

Whereas, The American Medical Association has received officers of the United States Army, Navy, and Public Health and Marine-Hospital Service directly, without passing through the District Medical Association; be it

Resolved, That the Section on Pharmacology and Therapeutics requests the House of Delegates, for the sake of justice and fair play to extend the same opportunities to join the American Medical Association to medical men engaged in scientific work for the United States Government but not in the active practice of medicine as are extended to the commissioned officers of the Army, Navy and Public Health and Marine-Hospital Service.

Supplementary Report of the Reference Committee on Legislation and Political Action

Dr. Walter B. Dorsett, Missouri, Chairman, presented the following report of the Reference Committee on Legislation and Political Action:

To the House of Delegates of the American Medical Association:

There was referred to your committee the request from the Section on Hygiene and Sanitary Science "that a permanent Council on Sanitary Science be appointed by the American Medical Association; and that a special department on Sanitary Science be regularly maintained in THE JOURNAL of the Association under the supervision of this Council; and that the Association be requested to appropriate a suitable sum of money for the use of this Council."

There appeared before us a committee from the Section on Hygiene and Sanitary Science, the chairman of the Organization Committee and the secretary of the Bureau of Legislation. After a prolonged discussion, it became evident that the subject was very important and somewhat complicated. Your committee is in hearty accord with the desire of the Section on Hygiene and Sanitary Science to increase its influence and activities by providing a permanent body to carry on continuous investigations and assist the boards of health of various states and municipalities in meeting the numerous and important problems of sanitation which are continually arising. On the other hand, it is worthy of careful consideration whether these functions may not be imposed advantageously on some already existing Council or Bureau. Our attention was called to the fact that legislation involves, generally, a long course of preliminary popular education, and hence the functions of the Bureau of Legislation and those of the Committee on Public Instruction are closely allied. Moreover, the duties of the Committee on Organization have become largely those of popular education. Since the duties of the proposed Council on Hygiene and Sanitary Science would be, in part, those of publicity and legislation, it is possible that they might be performed in conjunction with the duties of the other committee, just named, by a Council on Public Health, Publicity and Legislation.

This whole subject should be carefully studied by all committees interested, and your Reference Committee, therefore, has decided to recommend that a committee of five, composed of the chairmen of the standing committees on Medical Legislation, on Public Instruction and on Organization and of two representatives from the Section on Hygiene and Sanitary Science, be appointed to consider the advisability of combining the functions of legislation, public instruction, organization and public sanitation and intrusting them to a permanent Council to be known, perhaps, as the Council on Public Health, Publicity and Legislation, and report to the House of Delegates next year.

On the representations of the committee from the Section on Hygiene and Sanitary Science that there is urgent need that certain work should be undertaken this year, it was agreed to recommend that the Committee on Legislation, through its Bureau, be instructed to cooperate for one year with a committee of three from the Section on Hygiene and Sanitary Science to carry on such work as may be necessary; and further, that the Trustees be requested to appropriate such reasonable sums as may be found necessary to carry on such work; and further, that the report of this work be made at the annual session of 1910.

It is recommended that all questions of policy and procedure relative to legislation not specifically covered by resolutions passed at the present session of the American Medical Association shall be left to the discretion of the Committee on Medical Legislation.

WALTER B. DORSETT,
Chairman Reference Committee on Legislation and Political Action.

On motion. the report was adopted.

Report of Committee on Amendments to Constitution and By-Laws

DR. H. WORK. Colorado, read the report of the Reference Committee on Amendments to the Constitution and By-Laws, as follows:

To the House of Delegates of the American Medical Association:

Your committee begs leave to report the following amendments to the by-laws of the Association:

(a) Repeal Section 1 of Chapter I, Book I, entitled, "Membership—How Obtained," and substituting the following:

Section 1. Membership—how obtained. A member in good standing of the constituent association of the state in which he resides may become a member of the American Medical Association by presenting to the General Secretary: (1) Satisfactory evidence of the above qualification; (2) written application for membership on the prescribed form; (3) the payment of the annual assessment and the subscription to THE JOURNAL of the American Medical Association. Commissioned medical officers of the United States Army, United States Navy and United States Public Health and Marine-Hospital Service shall be members. They shall not be required to pay the annual assessment, nor shall they receive THE JOURNAL of the American Medical Association unless on personal subscription.

(b) Repeal Section 4 of Chapter I, Book I, entitled, "Delinquency—Dues Must be Paid," and substitute the following:

Section 4. Delinqency. Any member who shall fail to pay his annual assessment and subscription to THE JOURNAL for one year, unless absent from the country, shall be dropped from the roll of members, provided that due notice shall be previously given to the member by the General Secretary. Any member who has been suspended for non-payment shall be restored only when all his indebtedness has been paid.

(c) In the last line of Section 1, Registration, of Chapter II, Book I, substitute for the word "dues" the following: "Assessment and subscription to THE JOURNAL."

(d) Immediately following the sections and chapters of Book IV, insert the following new book and chapter:

Book V. Assessment and Subscription to THE JOURNAL.

Chapter XIV. The annual assessment for membership shall be one dollar; and the price of subscription to THE JOURNAL of the American Medical Association shall be four dollars for members and five dollars for non-members a year.

Book V, entitled "Amendments," shall now become Book VI, and Chapter XIV shall become Chapter XV, and Chapter XV shall become Chapter XVI of Book VI, entitled "Amendments."

In Book IV, Chapter XII, Section 2, entitled "Scientific Work," add to the first sentence the words "and such other officers as the Section shall beem advisable," making it to read: "The officers of each Section shall consist of a Chairman, a Vice-Chairman, a Secretary, and such other officers as the Section shall deem advisable."

The resolution submitted to this committee providing:

"That the Committee on Amendments to Constitution and By-Laws and the Judicial Council be made one committee, known as the Judicial Advisory Committee, with its duties as defined in the By-Laws, Book III, Chapter X, Sections 4 and 11, d. 6, and with the added function, that on request of the House it shall act in joint session with any other reference committees on matters that seem to require it.

This committee to be composed of the five last retiring Presidents of the Association, each year the senior ex-President to be retired and the retiring President added to the committee. This committee to be in session, or available for session, when the House of Delegates is in session, to receive all matters that may be referred to it. To have the privileges accorded to other committees, of the floor of the House during the discussion of any matter presented by them, but shall not be entitled to a vote in the House, and shall not be entitled to a seat there at any time, but as above specified.

This resolution attempts to transfer certain duties of two important existing committees to a new committee to be created, vested with similar and additional powers. The membership of this committee is determined years in advance regardless of whether or not the members of this committee may be present at the meetings of the Association or House of Delegates prepared to act. And your committee recommends that it be not adopted.

The resolution also which seeks to create a Council on Public Health and which runs as follows:

The Council on Public Health shall consist of five members. One member shall be elected to serve for one year, one for two years, one for three years, one for four years and one for five years. Thereafter, one member shall be elected each year to serve five years. The Council shall organize, shall elect a Chairman and Secretary, and shall adopt such regulations for the government of its actions as it deems expedient. It shall expend money or contract financial obligations only as shall be authorized in writing by the Board of Trustees.

The functions of the Council on Public Health shall be:

1. To make such original investigations pertaining to public health subjects, as it may deem advisable.

2. To supervise the publication of information relative to sanitary science and public health.

3. To act in an advisory capacity and to cooperate with the public health department in the United States, national, state municipal, when requested to do so by the proper officers.

Inasmuch as the Reference Committee on Legislation and Political Action has had referred to it identical matter, a report on which they have made to this House of Delegates, we return this proposed amendment to the House without action.

The following resolution that the clause of the Principles of Ethics, Chapter II. Article I, Section 8, relating to the prohibition of patenting of surgical instruments by members of the medical profession be changed, omitting surgical instruments from such prohibition, is respectfully returned with the recommendation that it be recommitted by the House of Delegates to the Judicial Council.

The resolution seeking to amend Article IV of the Constitution by adding at the end of said Article the words: "The House of Delegates, on application, may arrange for the recognition of constituent associations outside of, but adjacent to, the United States." The Constitution requires that this resolution lie over for consideration at the next annual meeting.

By action of this House, some changes have been made in the titles of certain sections of the by-laws, and we therefore recommend that the resolutions already passed be considered as carrying with them presentation of the changes in the by-laws that will be necessary to change the titles in the by-laws, and that the General Secretary be empowered to make such changes in verbiage, and such changes only as will make the by-laws accord with the titles of sections as agreed on by this House at this session. Respectfully submitted.

Floyd M. Crandall.
F. Paschal.
J. Shelton Horsley.
G. W. Guthrie.
Hubert Work, Chairman.

On motion of Dr. Alexander R. Craig, Pennsylvania, seconded by Major M. W. Ireland, U. S. A., the report was adopted.

Supplementary Report of the Reference Committee on Reports of Officers

Dr. Alexander R. Craig, Pennsylvania, Chairman, presented the following supplementary report of the Reference Committee on Reports of Officers:

The Reference Committee on the Reports of Officers asks permission to supplement its report on the "Board of Trustees" by recommending that the following minute, in memory of Dr. T. J. Happel, a member of that board at the time of his death, be spread on the records of this House. The Reference Committee wishes to acknowledge its indebtedness to Dr. Jere L. Crook, who attended Dr. Happel in his last illness, for the tribute which it desires the House to adopt.

The friendship of Dr. Happel is the most cherished possession of those who knew him, the recollection of which will ever be a bright and hallowed spot in their memory. His life was spent in a little town, but his influence was felt throughout the state and country. His attendance at the meetings of this Association was constant. He never missed a meeting of the state association, of which body he was, many years ago, president. In these and other medical organizations with which he was connected his interest and attendance did not wane when his term of office closed. He never failed to contribute to the success of the meetings, and could always be relied on to take an active part in every phase of the meeting.

In Trenton no one would dare question the statement that Dr. Happel was pre-eminently its leading and most valued citizen. For thirty years he served the municipality as alderman, and his influence was constantly exerted for civic righteousness, municipal improvements and for every measure that tended toward the betterment of the community from a sanitary, economic and esthetic standpoint. The little city rests under the shade of row after row of pretty trees, planted by him, has fine water, good lights, beautiful homes, embowered in roses and surrounded with pretty lawns, and its people are refined, cultured, generous, well educated and patriotic.

It was in this environment that Dr. Happel lived his life of self-sacrifice and devotion to his people, who never called to him in vain. Small wonder is it that he was their idol, their exemplar, their ideal of all that a good physician and a cultured Christian gentleman should be.

Dr. Crook bears this personal tribute, the sentiment of which this House indorses: "It was my sad privilege to visit him a number of times during his last illness and to attend his funeral. For two months his friends and former patients took their turn in watching every night at his bedside, and he was nursed tenderly, devotedly and efficiently by his daughter and sons with a constancy and faithfulness beautiful to behold. On that sad day when his body was laid away beneath the flowers he loved so well, the grief of the entire community found expression at the church and cemetery, practically every one attended, business being suspended and every store closed."

Long will his influence be felt in Tennessee and the country. He was an ideal physician, a noble gentleman, a faithful friend. He embodied in his life and character the highest aims of our profession. His life was a blessing, his memory a benediction.

For and by order of the Committee.

Alexander R. Craig, Chairman.

Dr. Charles S. Bacon, Illinois, moved that a standing vote be taken in connection with this report referring to Dr. Happel. Seconded.

Dr. W. W. Grant, Colorado, said he desired to say a few words in regard to his late colleague, Dr. Happel, who served so well on the Board of Trustees. It had been his pleasure to serve with Dr. Happel continuously from the beginning of the reorganization at St. Paul, nine years ago. He thought he voiced the sentiments of the Board and of the members present who were familiar with Dr. Happel's work, that they did not have a more faithful, more honorable, more upright and zealous worker in behalf of the Board and of the Association than their deceased colleague. He died with the uniform respect of the Board of Trustees, with admiration for his work and a loving regard for his memory.

Dr. G. W. Guthrie, Pennsylvania, moved as an amendment that a certified copy of the report regarding Dr. Happel be sent to his family.

The amendment was seconded and accepted, and carried by a rising vote.

Report of the Board of Trustees of the Printing and Distribution of the Annual Reports of Officers and Committees

Dr. W. W. Grant, Colorado, a member of the Board of Trustees, presented the following:

RESOLUTION OF DR. J. C. BIERWITH OF NEW YORK

The Board of Trustees recommends the adoption of the resolution requesting the General Secretary to send the annual reports of officers and committees and reports of special committees to officers, members of the House of Delegates and Trustees at least two weeks before each annual session of the Association.

William H. Welch, Chairman.

On motion of Dr. Charles S. Bacon, Illinois, the recommendation of the Board of Trustees was concurred in.

Report of the Board of Trustees of the Report Regarding the N. S. Davis Memorial

The Board of Trustees approve the recommendation of the Reference Committee on Miscellaneous Business as amended in the House of Delegates, to the effect that the American Medical Association appropriate the sum of $5,000 for the purpose of creating a suitable memorial to Dr. N. S. Davis, the founder of the Association, provided that within three years from this date (June 10, 1909) an additional sum of $20,000 be collected for this purpose, and provided that the form of the memorial be approved by the House of Delegates of this Association.

William H. Welch, Chairman.

On motion, the report of the Board of Trustees was adopted.

Report of the Board of Trustees on the Proposal to Consider the Formation of a Physicians' Mutual Aid Society

RESOLUTION OF THE DELEGATES OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

The Board of Trustees desires further information concerning the plan of organization and operation of the suggested Physicians' Mutual Aid Society before expressing a definite opinion concerning this proposal.

With its present information, the Board is of the opinion that the formation and conduct of such societies are a matter of state and local concern rather than an affair of the National Association.

William H. Welch, Chairman.

On motion of Dr. Charles S. Bacon, the report of the Board of Trustees was adopted.

Report of Committee on Miscellaneous Business

Dr. Thomas A. Woodruff, Section on Ophthalmology, Chairman, presented the following report of the Committee on Miscellaneous Business:

To the House of Delegates of the American Medical Association:

Regarding the resolution to safeguard the expenditure of funds for pensions, annuities, etc., your Committee recommends that no action be taken in this matter at the present time by the House of Delegates.

The Committee recommends that the President of this Association appoint a committee of five members to inquire into the desirability and practicability of the establishing under the auspices of the American Medical Association of a fund for

the assistance of physicians disabled by sickness, and of a sanatorium for the treatment of such members of the Association as may be afflicted with tuberculosis or similar diseases, such committee to report to the House of Delegates at the next annual meeting of the Association.

On motion of Dr. R. S. Cathcart, South Carolina, seconded by several, the report was adopted.

Education of the Public in Preventive Medicine

On motion of Dr. Arthur T. McCormack, Kentucky, the unanimous consent of the House was obtained in order that Dr. Charles A. L. Reed might introduce the following preambles and resolutions, coming from the Section on Hygiene and Sanitary Science:

WHEREAS, The American Medical Association, not only as one of its declared purposes, but by numerous lines of activity, many of them connected with the Section on Hygiene and Sanitary Science, stands committed to the education of the public with respect to the nature and prevention of disease, and

WHEREAS, The demand for such popular education with respect to tuberculosis, cancer, typhoid fever and other decimating diseases has become urgent; therefore, be it

Resolved, That all county, district and other local medical societies be and they are hereby requested to hold annually one or more open meetings to which the public shall be invited and which shall be devoted to a discussion of the nature and prevention of disease and to the general hygienic welfare of the people.

Resolved, That the women physician members of the American Medical Association, be and they are hereby requested to take the initiative individually in their respective associations in the organization of educational committees to act through women's clubs, mothers' associations and other similar bodies, for the dissemination of accurate information touching these subjects among the people and that they be requested to submit to the House of Delegates a yearly report of such work, and elect from among their number a committee to take charge of the same.

It was moved by Dr. Reed that the resolutions be adopted. Seconded and carried unanimously.

Message of Sympathy to Dr. Burrell and Dr. E. Marvel

Dr. Arthur T. McCormack, Kentucky, moved that the Secretary and President send a telegram to the retiring President, Dr. Burrell, regretting his inability to attend this meeting on account of illness, and expressing the hope that he would soon be restored to general good health.

The motion was seconded by Dr. Cantrell, Texas, and carried.

DR. L. M. HALSEY, New Jersey, moved that the Secretary be instructed to send a letter of sympathy to Dr. Emery Marvel, Chairman of the Entertainment Committee, with hopes for a speedy recovery.

Seconded and carried.

On motion of Dr. Alexander R. Craig, Pennsylvania, the work of the Committee on Organization was commended and the Committee continued.

New Business

By unanimous consent of the House of Delegates the following new business was introduced:

RESOLUTION OF THE SECTION ON HYGIENE AND SANITARY SCIENCE PRESENTED BY DR. C. L. WHEATON.

WHEREAS, The largest undertakings of medicine are in the field of prevention and the status of medicine in public esteem depends mainly on the performance of medical men in this field, and

WHEREAS, The essential numerical data of preventive medicine are wanting for the lagest part of the United States, in respect to both area and population, and

WHEREAS, The want of vital statistics is on one hand regularly denounced by men of other sciences as the chief reproach of public medicine; and on the other hand regularly offered by medical men in apology for poor performance, and

WHEREAS, The relations of the Government of the United States with other civilized nations, include both general implication and overt profession that the Government of the United States is both desirous and able to receive and to give official accounts of births, deaths and communicable diseases, and.

WHEREAS, The Kingdom of Italy has twice addressed notes to the Government of the United States, alleging that the United States has failed to comply with the stipulations of Article XVI of the Consular Convention of May, 1878, in which the Government of the United States and the Kingdom of Italy agreed, each to furnish the other official records of deaths, and

WHEREAS, The Government of the United States was unable in 1878, and in 1909, still remains unable to fulfill any such international obligations whether express obligations, as in the case of Italy, or implied obligations, as in every case when our foreign relations are with civilized peoples, and

WHEREAS, the duty of systematic registration of births and deaths belongs to the Sovereign States, and not to the Federal Government, and

WHEREAS, The non-performance of this duty has led to definite allegations affecting the honor of the country in foreign relations, is a major delinquency in state government, and is an affectual barrier against progress in state medicine; therefore, be it

Resolved, That the Executive Officers of the American Medical Association, be and are hereby requested to take such steps as are necessary: First, to inform the Government of the United States and the Governors of the several states, concerning the great importance of that delinquency which is partly exposed by the allegations of the Kingdom of Italy concerning the non-performance of the stipulations of Article XVI of the Consular Convention of May, 1878; second, to cooperate with the Bureau of the Census, with the official bodies of the several states, and with the various unofficial bodies having interests in this subject, to the end that the practice of registration of Vital Statistics may extended with all speed to cover the whole area of the United States.

Moved by JOHN S. FULTON.
Seconded by MARSHALL L. PRICE.

On motion, the preambles and resolutions were referred to the Committee on Medical Legislation.

WHEREAS, The Section on Hygiene and Sanitary Science has passed a resolution calling on the American Medical Association to take whatever steps are necessary to make the registration of vital statistics complete, for the whole area and population of the United States, which reolution being hereto attached, is hereby made a part of the preamble to this resolution; therefore, be it

Resolved, By the House of Delegates of the American Medical Association, that this request of the Section on Hygiene and Sanitary Science, shall be complied with.

On motion of Dr. Craig, the resolutions were referred to the Committee on Medical Legislation.

Time Devoted to Sanitary Science in Medical Colleges

DR. CHARLES A. WHEATON, Section on Hygiene and Sanitary Science, offered the following resolution, which was referred to the Council on Medical Education:

Resolved, That it is the opinion of the Section on Hygiene and Sanitary Science, that in the schedule of hours recommended by the Council on Medical Education of the American Medical Association, far too little time and attention has been given to the subject of sanitary science.

Teaching of Sanitation and Preventive Medicine in Public Schools

DR. CHARLES A. WHEATON, Section on Hygiene and Sanitary Science, offered the following resolution from the Section on Hygiene and Sanitary Science, which was referred to the Board of Public Instruction on Medical Subjects:

Resolved, That this Section recommends to the Association the full appreciation of the seriousness of infections of all kinds, *whether acute or chronic, as a permanent drain* on the life capital of the individual which can never be restored;

Resolved, That the supervision of the Health of school children by medical inspection, and the prompt treatment of all children of disease and the correction bodily infirmities and defects be declared by the association as essential to the welfare of the Nation, and

Resolved, That the Association use its effort to have education in sanitation and preventive medicine made a part of the curriculum of all public schools, and that teaching on such subjects be under the recommendation of and subject to the approval of the health authorities of the state or other jurisdiction in which it is given.

The Postoffice and Fraud Orders

DR. OSCAR DOWLING, Louisiana, offered the following resolutions:

Resolved, That the American Medical Association approves the policy of the United States Postoffice Department in the issuance of fraud orders against disreputable purveyors of nostrum and equally disreputable pretenders in medicine who are robbing while pretending to cure the sick, and

Resolved, That the present declared policy of Hon. F. H. Hitchcock, Postmaster General, to continue this crusade and the firm attitude of Hon. R. P. Goodwin, United States District Judge in enforcing the postal laws against this class of offenders entitles both of them to the grateful appreciation of the American people.

On motion, the resolutions were adopted.

Resolution of Thanks

DR. ARTHUR MCCORMACK, Kentucky, offered the following resolution of thanks:

Resolved, That the thanks of this Association be and are hereby tendered to the people and profession of Atlantic City and of New Jersey for the hospitality so generously extended to its members, to the Committee of Arrangements for its faithful and successful efforts in our behalf, and to all others who have in any way assisted in making one of the most pleasant and profitable meetings in the hitory of the Association. Also our thanks to Dr. T. J. Murray, retiring Acting President, and to our *President*, Dr. W. C. Gorgas, for the able, impartial and courteous manner in which they have discharged their duties.

On motion, seconded by several, the resolution was adopted unanimously by a rising vote.

On motion of Dr. Alexander R. Craig, Pennsylvania, the House of Delegates then adjourned *sine die*.

Members of the House of Delegates in Attendance

(The figure following the name of the state shows the number of delegates to which the state is entitled.)

ALABAMA—3
- William H. Sanders.....Montgomery
- Mack Rodgers.....Birmingham

ARIZONA—1
- Edward Godfrey, Jr.....Tuczon

ARKANSAS—2
- Eugene C. Hay.....Hot Springs

California—3
O. D. Hamlin.....Oakland
H. Bert Ellis.....Los Angeles
G. McGowan.....Los Angeles
Colorado—2
Hubert Work.....Pueblo
Edward Jackson.....Denver
Connecticut—2
Everett J. McKnight.....Hartford
D. Chester Brown.....Danbury
Delaware—1
J. H. Wilson.....Dover
District of Columbia—1
G. Wyeth Cook.....Washington
Florida—1
J. H. Pierpont.....Pensacola
Georgia—2
George R. White.....Savannah
Hawaii—1
A. G. Hodgkins.....Honolulu
Idaho—1
Illinois—7
C. S. Stremmel.....Macomb
J. F. Percy.....Galesburg
L. H. A. Nickerson.....Quincy
E. W. Weis.....Ottawa
Frank Billings.....Chicago
C. S. Bacon.....Chicago
James W. Pettit.....Ottawa
Indiana—4
W. N. Wishard.....Indianapolis
Edwin Walker.....Evansville
G. W. Thompson.....Winamic
Harry C. Sharp.....Indianapolis
Iowa—3
G. E. Crawford.....Cedar Rapids
D. S. Fairchild.....Clinton
Arthur L. Wright.....Carroll
Kansas—3
J. W. May.....Kansas City
C. C. Goddard.....Leavenworth
L. L. Uhls.....Ossawotomie
Kentucky—3
A. D. Price.....Harrisbury
M. E. Alderson.....Russellville
A. T. McCormack.....Bowling Green
Louisiana—2
Oscar Dowling.....Shreveport
E. D. Martin.....New Orleans
Maine—1
Eugene E. Holt.....Portland
Maryland—2
G. L. Taneyhill.....Baltimore
L. F. Barker.....Baltimore
Massachusetts—6
H. D. Arnold.....Boston
O. J. Brown.....North Adams
Charles F. Canady.....Greenfield
R. P. M. Ames.....Springfield
Michigan—4
A. M. Hume.....Detroit
S. C. Graves.....Grand Rapids
T. A. Felch.....Ishpeming
F. W. Robbins.....Detroit
Minnesota—2
C. J. McComb.....Duluth
Thomas McDavitt.....St. Paul
Mississippi—2
J. B. Bullitt.....University
Missouri—4
J. D. Griffith.....Kansas City
Walter Dorsett.....St. Louis
E. J. Goodwin.....St. Louis
Montana—1
Donald Campbell.....Butte
Nebraska—2
H. Gifford.....Omaha
T. P. Livingston.....Plattsmouth
New Hampshire—1
William T. Smith.....Hanover
Nevada—1
New Jersey—3
C. R. P. Fischer.....Bound Brook
Alexander McAllister.....Camden
Luther M. Halsey.....Williamstown
New Mexico—1
P. G. Cornish.....Albuquerque
New York—11
Wesley T. Mulligan.....Rochester
J. C. Bierwirth.....Brooklyn
D. C. Moriarta.....Saratoga Springs
F. M. Crandall.....New York City
A. Vander Veer.....Albany
A. T. Bristow.....Brooklyn
C. Jewett.....Brooklyn
William S. Ely.....Rochester
E. H. Bartley.....Brooklyn
H. L. Elsner.....Syracuse
J. E. Sadlier.....Poughkeepsie
North Carolina—3
A. J. Crowell.....Charlotte
J. F. Highsmith.....Fayette
North Dakota—1
Victor H. Stickney.....Dickinson
Ohio—6
J. H. J. Upham.....Columbus
J. W. Clemmer.....Columbus
William E. Lower.....Cleveland
R. B. Hall.....Cincinnati
D. O. Weeks.....Marion
A. F. House.....Cleveland
Oklahoma—2
L. A. Hahn.....Guthrie
John B. McAlister.....Harrisburg
Oregon—1
Andrew C. Smith.....Portland
Pennsylvania—8
Alexander R. Craig.....Philadelphia
Philip Y. Eisenberg.....Norristown
George W. Guthrie.....Wilkes-Barre
Thomas D. Davis.....Pittsburg
William L. Estes.....South Bethlehem
F. W. Frankhauser.....Reading
Samuel Wolf.....Philadelphia
Philippine Islands—1
Rhode Island—1
John Champlin.....Westerly
South Carolina—2
Walter Cheyne.....Sumter
R. S. Cathcart.....Charleston
South Dakota—1
R. D. Alway.....Aberdeen
Tennessee—2
S. S. Crockett.....Nashville
L. A. Yarbrough.....Covington
Texas—5
C. E. Cantrell.....Greenville
William Brumby.....Austin
E. H. Cary.....Dallas
Frank Paschal.....San Antonio
Utah—1
Vermont—1
C. H. Beecher.....Burlington
Virginia—3
T. C. Firebaugh.....Harrisburg
William E. Anderson.....Farmville
J. Shelton Horsley.....Richmond
Washington—1
G. S. Peterkin.....Seattle
West Virginia—1
O. F. Covert.....Moundsville
Wisconsin—3
Charles S. Sheldon.....Madison
C. A. Richards.....Rheinlander
D. J. Hayes.....Milwaukee
Wyoming—1
J. J. Monahan, Encampment—seated without vote
United States Army—1
Maj. M. W. Ireland.....Washington, D. C.
United States Navy—1
Surgeon Manley F. Gates.....Philadelphia
United States Public Health and Marine-Hospital Service—1
Surgeon G. B. Young.....Chicago

Delegates from the Sections

Practice of Medicine—1
George Dock.....New Orleans
Obstetrics and Diseases of Women—1
J. H. Carstens.....Detroit

Surgery and Anatomy—1
J. T. Bottomley ..... Boston
Ophthalmology—1
T. A. Woodruff ..... Chicago
Laryngology and Otology—1
H. W. Loeb ..... St. Louis, Mo.
Nervous and Mental Diseases—1
D. Olsen Hecht ..... Chicago
Stomatology—1
G. V. I. Brown ..... Milwaukee
Cutaneous Medicine and Surgery—1
R. R. Campbell ..... Chicago
Diseases of Children—1
R. B. Gilbert ..... Louisville
Hygiene and Sanitary Science—1
Clarence L. Wheaton ..... Chicago
Pharmacology and Therapeutics—1
M. H. Fussell ..... Philadelphia
Pathology and Physiology—1
H. A. Christian ..... Boston

OPENING GENERAL MEETING

TUESDAY, JUNE 8, 10.30 A. M.

The general opening meeting was held in the Auditorium of Young's New Pier, Tuesday, June 8, at 10.30 a. m.

In the absence of President Herbert L. Burrell, Boston, the meeting was called to order by the First Vice President, Dr. J. J. Murray, Butte, Mont.

Prayer was offered by the Rev. Newton Cadwell, D.D., Atlantic City.

On the platform were ex-presidents, members of the Board of Trustees, the General Secretary, the Treasurer, and distinguished foreigners.

Address of Welcome

The Hon. Franklin P. Stoy, Mayor of Atlantic City, was introduced and delivered the address of welcome.

Mr. President, Ladies and Gentlemen, and Members of the American Medical Association:

I have been apprised of the fact that those who speak this morning must be brief, and I assure you that I will not detain you long.

I am pleased to see before me again this great bunch of intellect. I spoke at your meetings on two or three previous occasions, and you may think it strange that I should do so so many times, but as one of the city officials, I am pleased to be here this morning to welcome you to our city. You come from all parts of this country, and I question whether there is a body assembled in convention to-day anywhere in these United States which represents so many states and territories as you do. Let me say to you, in behalf of the people who live in our blessed city, that we are grateful to you for holding your convention here, and I am delegated to welcome you, not only as a body, but as individuals. I extend to you the freedom of the city. I do not understand all of the paraphernalia that you have brought with you. I see something here that represents perhaps a part of your armamentarium (pointing to a lion's cage belonging to a show). It looks to me as though it is unnecessary to offer or extend to you the courtesies of the Department of Public Safety. In having to take care of so large a delegation and of so many delegations as there are here to-day, it will be necessary for me to divide my honors, and therefore I am going to take pleasure in selecting from among your bunch a doctor who will act as nightmare (night mayor). The word seems very familiar to a great many of you, and perhaps the doctor's name I am about to mention will be just as familiar to you. I want to say that in selecting this gentleman, his name comes very nearly being "Mayor." I refer to Dr. Mayo of Minnesota. I shall leave with the doctor his credentials, and I shall certainly be glad to be relieved at 6 o'clock to-night in order that the doctor may have full sway of all he sees.

I thank you for this opportunity of greeting you, both individually and collectively, and I hope that when you are selecting a place for your next meeting you will not forget the name of Atlantic City.

Address of Welcome on Behalf of the Medical Profession of Atlantic City

Dr. E. H. Harvey: Gentlemen of the American Medical Association, the local medical profession greets you with best wishes for a most successful meeting. Nine years ago, when you first came here, you saw the sight of mud on our avenues, blocking your progress; but to-day that is all changed. Now there are miles of paved and macadam streets, magnificent hotels, apartment houses, business buildings and cottages and still we are marching on. Our boardwalk has been widened and lengthened, so that now we have five miles of the great boardwalk. Our population here has increased to such an extent that it has been nearly doubled in ten years. Compare your first visit here with your present one. The day is not far distant when we will have 100,000 resident population here and half a million visitors. Our boardwalk will be lengthened so that it will extend across the length of our island. A mammoth convention hall will greet you some day. Our city fathers have in embryo a "City Beautiful." We have faith in their ideas and feel and know they will mature. Come often and with us watch us grow.

Of water we have three kinds. Purest spring water, pumped into every household on the island, and used by all of us, a more than bountiful supply of salt water, which we use for bathing purposes; an ample supply of fire water, which medical men never use.

Here on our island, on our boardwalk, on the beach, in the surf, on the sea, give yourselves, your families, your wives, your sweethearts and your friends a good time. Our town is yours. Our doors are open. The beach, the sea, the surf, are yours. Our homes are yours. Our local medical profession bids you a thousand welcomes.

Address of Welcome on Behalf of the Medical Society of New Jersey

Dr. David St. John, Hackensack, N. J., President of the Medical Society of New Jersey, delivered the following address:

In coming to our ocean city again, we feel truly honored, for your coming is like that of a valued friend, the welcome of whose visit is intensified with each return.

The Medical Society of New Jersey (the oldest in the United States) bids you a hearty welcome. To the wives, the mothers, the friends of this distinguished body, to the older members of the profession, who have been prominent in advancing and holding high the standard of medical thought and work in this country, we extend a welcome. To the distinguished representatives of other countries, whose names by their works are world wide, we give a cordial greeting. To the younger men of the profession, who have more recently joined your ranks and upon whom the work and promise of the future depends, we bid welcome.

Medicine, as well as surgery, is rapidly becoming an exact science. In recent years great have been the accomplishments in both, and the future is indeed rich in promise.

The advances made by research work in the various fields of medicine, together with the brilliant results in the surgery of the heart, joints, uteries, veins, etc., made possible by animal experimentation, is hardly less than marvelous, and what forceful answers they offer to the empty arguments of the shouting opponents of vivisection.

The various cults which are assuming a "brief hour on the stage," and which a few may view with apprehension, will only serve to stimulate you to greater and higher achievements. Your profession was never so capable of rendering skilful scientific care to the sick as it is to-day, and should command as its well earned right the respect and confidence of the people, the state and nation, as never before.

Your part in the work of advancement in every field of medicine and surgery has been great and notable, and under the leadership of your President, the brilliant Colonel Gorgas, we bespeak for you an epoch making year in your history.

Again, to one and all, we extend a glad welcome.

Introduction of Foreign Guests

At this juncture the First Vice President introduced the foreign guests: Professor Friedrich of Marburg, Germany; Mr. W. Arbuthnot Lane of Guy's Hospital, London, England; Dr. Max Nonne of Hamburg, Germany.

Changes in Meeting Places, Etc.

Dr. Philip Marvel, Atlantic City, presented a report of the Trustees' Committee of Arrangements, as Chairman. He called attention to the changes in places of meetings of Sections on account of a storm, and referred to the arrangements that had been made for the members and their guests.

Dr. J. A. Joy, Chairman of the Local Committee of Arrangements and Entertainments, said that this Committee, in conjunction with the Trustees' Committee of Arrangements, has provided a series of entertainments which would prove enjoyable and attractive, and called attention to the program of entertainments and other matters of interest, as set forth in the official program.

Installation of the President

The President-Elect, Col. William C. Gorgas, Ancon, Panama, was then introduced and delivered his presidential address, his subject being "Sanitary Work at Panama as it Bears on Malaria," which appears in full in The Journal, p. 1967.

Adjourned.

Officers of Sections

The minutes of the various Sections of the American Medical Association will be published in The Journal later, probably in the first issue of July, since next week's number contains the semi-annual index. The next officers of the Sections are given below. It will be noted that the names of the Sections are given in accordance with the changes authorized by the House of Delegates at Atlantic City.

Section on Practice of Medicine

Chairman—George Blumer, New Haven.
Secretary—Wilder Tileston, Boston.
Delegate—Joseph A. Capps, Chicago.
Alternate Delegate—Alexander Lambert, New York.
Orator—Richard Cabot, Boston.
Executive Committee—Thomas D. Coleman, Augusta, Ga.; C. F. Hoover, Cleveland; Joseph L. Miller, Chicago.

Section on Obstetrics and Diseases of Women

Chairman—John G. Clark, Philadelphia.
Vice-Chairman—C. C. Frederick, Buffalo.
Secretary—C. Jeff Miller, New Orleans.
Delegate—Horace G. Wetherill, Denver.
Alternate—I. S. Stone, Washington, D. C.
Executive Committee—J. Wesley Bovée, Washington, D. C.; W. B. Dorsett, St. Louis; Walter P. Manton, Detroit.

Section on Surgery

Chairman—Charles H. Mayo, Rochester, Minn.
Vice-Chairman—Thomas Huntington, San Francisco.
Secretary—W. D. Haggard, Nashville.
Orator on Surgery—Robert Abbe, New York.
Delegate—Edward H. Ochsner, Chicago.
Alternate—J. W. D. Maury, New York.
Executive Committee—Arthur D. Bevan, Chicago; Rudolph Matas, New Orleans; John C. Munro, Boston.

Section on Ophthalmology

Chairman—W. C. Posey, Philadelphia.
Vice-Chairman—Hiram Woods, Baltimore.
Secretary—A. E. Bulson, Jr., Ft. Wayne.
Delegate—T. A. Woodruff, Chicago.
Executive Committee—G. C. Savage, Nashville, Tenn.; William H. Wilder, Chicago; Alvin A. Hubbell, Buffalo.

Section on Laryngology and Otology

Chairman—Chevalier Jackson, Pittsburg.
Vice-Chairman—George F. Cott, Buffalo.
Secretary—George E. Shambaugh, Chicago.
Delegate—D. Braden Kyle, Philadelphia.
Executive Committee—S. MacCuen Smith, Philadelphia; H. W. Loeb, St. Louis; W. Sohier Bryant, New York.

Section on Nervous and Mental Diseases

Chairman—Theodore Diller, Pittsburg.
Secretary—William A. Jones, Minneapolis.
Delegate—M. Allen Starr, New York.
Executive Committee—Morton Prince, Boston; T. H. Weisenburg, Philadelphia; M. Allen Starr, New York.

Section on Preventive Medicine and Public Health

Chairman—J. N. Hurty, Indianapolis.
Vice-Chairman—C. F. Williams, Columbia, S. C.
Secretary—M. Langdon Price, Baltimore.
Delegate—J. H. White, New Orleans.
Alternate—C. L. Wheaton, Chicago.
Orator—Seneca Egbert, Philadelphia.
Executive Committee—Prince A. Morrow, New York; W. C. Gorgas, Ancon, Canal Zone; J. H. White, New Orleans.

Section on Stomatology

Chairman—Thomas L. Gilmer, Chicago.
Vice-Chairman—James Graham Sharp, San Francisco.
Secretary—Eugene S. Talbot, Chicago.
Delegate—G. V. I. Brown, Milwaukee.
Alternate—Stewart L. McCurdy, Pittsburg, Pa.
Executive Committee—M. I. Schamberg, New York; E. A. Bogue, New York; Edward C. Briggs, Boston.

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The New York Museum of Safety and Sanitation.—In Europe much attention is given to the prevention of industrial accidents. Manufacturers advertise for safety devices to lessen the risks in their shops. There are ten transatlantic museums of safety and sanitation, where employers go to learn how to avoid accidents by seeing what devices will safeguard them against heavy expenditures for damages and secure the protection of the workmen in their employ. The need of prevention of industrial accidents (if for no other motive, to avoid wasting money in litigation or spending it in taxes or charity to support the victims of carelessness) is becoming every year more apparent in the United States. In the whole country from all causes in 1908 there were 500,000 such accidents. The money loss in wage-earning efficiency is at least $250,000,000, yet 50 per cent. of these casualties are preventable in the opinion of the engineering profession. Then, too, much has been said about the needless loss in war due to preventable disease. In all the wars in which the United States has engaged disease has been responsible for more than 70 per cent. of the mortality, more than one-half of which could have easily been prevented through organization and preparedness. If on the occasion of another war we are not to experience a similar loss from want of preparation, steps must be taken toward diffusion of knowledge of how to prevent these diseases in time of war. A Museum of Safety and Sanitation has been established in New York to show how such losses may be avoided. Models, photographs and diagrams of safety devices that will prevent half of the present loss will be kept on view, so that the American manufacturer can secure the same advantage by preventive measures as his European competitor, and the American people may have the benefit of the most advanced devices of sanitation.

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Addresses

EDUCATIONAL IDEALS IN MEDICINE*

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In the fifty-four years since I entered my own alma mater—Brown University—as a freshman (pray, do not think me an antediluvian; 1855, I assure you, followed the memorable catastrophe of the flood at quite a long interval!) it has been my privilege to know among my fellow alumni a number of its distinguished sons. In public life there were Richard Olney, John Hay, fellow students, though not fellow classmates (how little did I realize what distinguished careers were before them), Charles E. Hughes, already thane of Glamis and of Cawdor, and I hope king hereafter, and Everett Colby, whose fine record is known of all men. In academic life, besides others of lesser note, there were four eminent college presidents, Angell of Michigan, Wheeler of California, Faunce of Brown, and, last but by no means least, my warm friend for nearly two-score years, President Andrews of Brown—Chancellor Andrews of Nebraska.

When, therefore, Dr. Andrews invited me to deliver this address, I was glad to oblige him and glad to make your acquaintance. My only regret is that he, your beloved leader, is absent; and I regret it the more because ill health is the reason. Another beckoning influence was my desire to spy out the land, for, even when I graduated, Nebraska was a wilderness without a railroad and without a city, not to speak of a university. Then Omaha had a population of only about 1,800 and the whole state only 25,000, while the university was not founded till 1869.

I was much impressed lately by an address before the American Association for the Advancement of Science by Professor Royce of Harvard. He said: "The center of gravity of our future American academic life can not always—can not, I think, very long—remain east of the Alleghenies. Through a perfectly natural and inevitable evolution the state universities of the middle west and of the far west, supported as they are, and will be, by the vast resources of their own communities, and guided by constantly improving educational ideals, will, within a generation or two, occupy a very nearly central place in the academic life of our country."

When I look at the splendid appropriations for their state universities by the legislatures of Nebraska, Minnesota, Michigan, Wisconsin, Illinois, and other western states, when I see the superb work done at these great institutions, and when I find that your own state has the lowest percentage of illiteracy of any of our many states, I am persuaded that the center of gravity is moving westward even more swiftly than Professor Royce intimated.

I am here, therefore, at your call and thank you for the great honor you have done me.

Professor Royce's mention of "Educational Ideals" has suggested my subject—"Educational Ideals in Medicine." By education, however, I do not mean solely that of the school and the college. The home gives us our first and most important and lasting education. If its atmosphere is low and sordid, sordid and low will we surely grow up. The marts of trade, the social life we live, the books we read, the newspapers we scan, the sermons and lectures we hear, the friends we talk with all educate us, no less than the formal training of the school, the university, and the professional school.

The following are some of the educational ideals in medicine:

I. THE IDEAL IN ACQUISITION

This may and ought to consist to a proper extent in the acquisition of money, and if we have the ideals I shall name later the more money we acquire the better for ourselves and for the community. A due reward for our labor and skill is both right and desirable. We must provide for ourselves and our families, and must lay up a store against old age or the "rainy day" of sickness or accident. If opportunity comes, we should strive to acquire still more, but never as the miser who merely adds bond to bond, mine to mine, million to million, and from time to time gloats with glee over his growing hoard, but as the fountain which gathers from every passing cloud the showers that filter through the soil away down below the surface of many broad acres and then distils it in limpid purified streams of water to the gladdening of the parched land and the joy of the thirsty traveler.

But remember the warning of our Lord—recorded, be it observed, by the medical evangelist Luke—"Take heed and beware of covetousness; for a man's life consisteth not in the abundance of the things which he possesseth." A man's *living* may depend on these carnal things, but his *life* depends on far better and more important things.

Besides money, we must acquire knowledge, not only in college and in the medical school, but all through our lives. Here let me urge you earnestly to lay broad and deep the foundations. The superstructure can never be imposing unless the foundations are solid. To a common school and a high school education, add, even if you have to work your finger-nails off, a college training in both the ancient and the modern languages, in mathematics, history, literature, rhetoric, and logic before you tackle the "ologies" in the professional schools.

* The Address at the commencement of the Medical Department, University of Nebraska, Omaha, May 20, 1909.

The other day I read an otherwise excellent medical paper by a promising young man, when suddenly the cold chills ran down my back as I ran across the words "in conjunction with a clinical data." One might as well say "a handsome women." Only by high achievement can he remove the blight cast on him in my mind by that single phrase. It shows that his education has been defective, just as chewing gum or feeding one's self with a knife shows that home training in good manners was lacking. Great geniuses will get to the top of the ladder in spite of such defects, but to the average, or even to the strong man, these fundamental educational defects will always be a handicap.

Moreover, when your time is absorbed in a successful practice it is difficult and sometimes almost impossible to cultivate the humanities and the "literature of power" which add so much grace and charm to the sturdy strength of the "literature of knowledge."

When you have laid a good foundation in a liberal education, then begin your professional studies and work as if your life depended on it. Four years of constant labor are too few to master the great "corpus" of medical knowledge. Your faculty, able as they are, can not give you more than a mere smattering of knowledge, only the A B Cs of what you must later learn for yourselves. But they can do two great things for you. They can teach you the methods by which they have gained, and you can gain, a thorough knowledge of medicine. I would rather teach a man how to study and teach him ten facts than a thousand facts and no method. In the long run the first man will reach the goal, while you won't be able to find the second man with a spy-glass.

Second, they can inoculate you with the virus of enthusiasm, when you will be immune from fatigue, from laziness, from indifference. Like your teachers, you, too, will be idealists, who, all aflame with zeal, will scale the heights of faith and drag the rest of the world up after you.

If you have learned how to study and the bacillus of enthusiasm has developed its intoxication in your system, then, after your graduation, you will begin your long years of real study which will make you an educated physician. Any one of you who fails to study, and study hard, for the next forty years will be left high and dry. To change the metaphor, if you are determined to climb high up on the ladder of knowledge the community will be glad to help you; if you are content to stand at its foot, you are not worth helping!

II. THE IDEAL IN ACHIEVEMENT

This foreshadows the second ideal for which the new century holds its laurel crown—the ideal in achievement.

You must not be content with only acquiring existing knowledge; for what is present knowledge but the accumulated discoveries and inventions of our forbears? If we act only as sluiceways to pass on this fund of knowledge to our successors, we fail of one of our highest duties—to add to existing knowledge by our own researches.

You may not, it is true, be a Jenner, a Pasteur, a Lister, or a Koch, for they are volcanic forces in the world of science that create continents or lift up mountain ranges. Yet, when these very giants sat on the hard benches of the medical school as young fellows, what one of their teachers ever dreamed of the great work they were to do? At sixteen Charles Darwin was considered "a very ordinary boy, rather below the common standard in intellect," and even at twenty-two he seemed destined to be nothing more than "an idle sporting man."

But you can all add something to the sum of knowledge. The joy of the discovery of a new truth, a new means of diagnosis, a better method of operating, a new serum for treatment which may save hundreds and even thousands of human lives sets the nerves a-tingling with joy and fills the soul with satisfaction as naught else can do. You can have this joy if you will. One of my own Jefferson boys, now Professor Rosenberger, has just accomplished such a feat by discovering a method by which the tubercle bacillus can be discovered in the blood long before it appears in the sputum. By its means he has diagnosticated, for instance, a brain tumor, and a tumor in the neck to be tuberculous and not a sarcoma, and made many other similar diagnoses which operation or necropsy has proved correct. I regard it as the most important and most far-reaching discovery as to tuberculosis since Koch's own discovery of the bacillus itself twenty-seven years ago.

Why, then, should not you go and do likewise?

III. THE IDEAL OF SERVICE

The third ideal for you to realize is the ideal of service. Your very bill-heads will remind you constantly of this, for will they not read "Mr. John Smith, to John Jones, M.D., Dr. For Professional Services" so much?

It is a clumsy way of reckoning, however, for who can reckon in coin of the realm the service rendered by the saving of a precious life to kindred and to the community? Who can transmute into paltry dollars the care and skill and learning that shut the door on death? Moreover, to whom shall Flexner and Jobling or Rosenberger render a bill for "professional services to mankind" by the discovery of the antiserum for cerebrospinal meningitis or by the discovery anent the tubercle bacillus? Who will pay it? No one! Remember that "only the lower things of life are sold; the higher things are always given."

The service you will render will always be a personal service, often at the expense of sleep, of comfort, of home joys, of recreation; but, believe me, it pays, as personal service always does. Remember that yours is not a trade, but a profession. "The object of a trade is to make money; the object of a profession is to bless mankind." This ideal of personal service can never be fully realized by others, or, indeed, rendered by others, but only by those of our own guild.

But, ladies and gentlemen of the audience, let me for a moment address you instead of the graduating class. To you of this audience, this city, and this state it is given to assist in this great work, not by your personal labor, but by your appreciation, your encouragement, and your financial aid. Among these young men there are not a few who, like many of my boys at the Jefferson, are longing to devote their lives to research, to discover means by which disease shall be defeated, epidemics lessened or abolished, homes made happy and mankind be blessed. Look at what I have seen accomplished in my own not overlong life; anesthesia, antisepsis and asepsis, the greatest gifts to mankind since the days of Jenner; yellow fever abolished; malaria put in leash; the *x*-rays discovered; the trichina discovered and its life-history and the easy method of destroying it ascertained—and what that means to Omaha, I need not explain to you; the mortality of cerebrospinal men-

ingitis reduced from 75 per cent. and more to 25 per cent. or less; the tubercle bacillus discovered; and now an early diagnosis in the curable stage made possible; ovariotomy and nearly all other abdominal operations made so safe that the time seems not far off when the well will almost envy the sick the fame acquired by having undergone a big operation! But, seriously, if these and many more similar discoveries have been made in the last sixty years, why may not one—or more—of this very class now graduating thus honor himself and this university and all Nebraska if you give him the opportunity?

The expense of a thorough medical education has grown enormously within the last twenty-five years. Instead of teaching large classes by lectures and a few diagrams we now need large and expensive laboratories, expensive to equip and more expensive to maintain, and the number of teachers must approximate the number of students, for instruction is now largely to individual units rather than *en masse* or even to small classes.

If from among its graduates in medicine the University of Nebraska should send forth one Pasteur, one Lister, one Virchow, or one Koch, or even one lesser light, would not it justify its entire existence and make the whole world its debtor?

I plead with you, therefore, for the erection and endowment of laboratories of research right here in Omaha amid its teeming thousands and its busy industries—one spot where the idea of gain shall be excluded and the idea of service shall be all-absorbing and all-dominating.

You are very practical men, you Nebraskans, and will naturally ask how much it will cost. Not less than a million—one-quarter for buildings and an endowment of three-quarters for salaries and running expenses. A half million will do for a starter, but the other half must be had to make a success. But you may object that "that is an enormous sum for us to give." True, but I have never known the West to refuse a "dare," especially from an Eastern "tenderfoot." Moreover, let me tell you that this sum is small compared with what your research fellows and professors will give in dollars, to say nothing of their enthusiasm, their unselfish lives, and the gifts they will give to mankind. One million dollars, if safely invested, can not bring in an income of more than $50,000 at the very outside. Yet I know one research worker, a man without substantial means, who, if he entered the arena of surgical practice would easily receive $50,000 or more a year, but who deliberately rejects this splendid income and is working for the modest salary of $3,000 a year for the joy and the reward of this work in the discovery of new truths which he has freely given to the whole world. He is giving, mark you, out of his poverty to the community the income of a million of dollars or more. Until you match that by equally liberal gifts you must doff your hats to this devotee of science as more generous than yourselves.

IV. THE IDEAL OF CHARACTER

The fourth ideal which the twentieth century demands of you is the ideal of character. You may win fame, fortune, and power, but, unless you win also a pure and lofty character, the rest will be but apples of Sodom turning to ashes at the slightest touch. "If you want to know what people love most," says the *Outlook*, "do not go into their shops and factories; find out who their heroes are; for the hero always embodies, more or less perfectly, the real aspirations and the fundamental desires of a people. Who are the heroes loved by Americans? Washington, Jefferson, Franklin, Lincoln, Grant, Lee, Stonewall Jackson, Emerson, Beecher and Brooks. Now it is significant that not one of these men was a great material organizer in the acquisition of wealth. All the American heroes have stood for devotion to principle, for love of liberty, for consecration to the interests of humanity, for apostolic fervor in preaching the religion of Christ, for a noble idealism in interpreting America in terms of spiritual opportunity and achievement."

"To prepare ourselves for sudden deeds by the reiterated choice between good and evil, gradually determines character," says the author of "Romola." Tested by this scale, how high is the honor of your chosen profession! Whenever you close your office door on a woman patient you give your reputation freely into her hands and she her honor into yours! How rarely is this high trust abused by either the one or the other! In my opinion our profession stands preeminently for this ideal of character.

Here, then, my last word to you. Up and be doing, you new graduates of a splendid foster-mother! Take part in the fray! Don't be merely an onlooker, a fossil of 1909, but throw yourselves with all your magnificent western vigor and vitality into the very midst of the fighting. Stand on "the firing-line of scientific advance" and win renown for yourselves and for your university by the greatest possible additions to science and the largest possible service to humanity.

1729 Chestnut Street.

OPHTHALMOLOGIC QUALIFICATIONS WHICH SHOULD BE DEMANDED OF THE GENERAL PRACTITIONER AND OF THE SPECIALIST, RESPECTIVELY

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON OPHTHALMOLOGY AT THE SIXTIETH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, 1909

ALVIN A. HUBBELL, M.D.
BUFFALO, N. Y.

INTRODUCTORY REMARKS

Permit me in opening the [illegible] the Section of Ophthalmology of the [illegible] Association for 1909, first, to thank you cordially for the great honor which you have bestowed on me and to express to you my appreciation of the confidence which your suffrages have signified.

The example of my predecessors in this office and the scientific expectations of yourselves have demanded of your officers a meritorious program. Our earnest efforts have been made to satisfy you, and we trust that our labors will not have been in vain. For such success as we may have attained, we are indebted to the members of the Section for their cordial assistance and cooperation and for which we are most grateful. As for myself, I am under the deepest obligations to our Secretary for his self-sacrificing, untiring and efficient services.

In submitting to you for your consideration and discussion the preliminary contributions to the program, you will observe that they are made entirely by members of the Association. Professor Fuchs of Vienna was invited to participate in our deliberations and to lend us the prestige of his great name, and through the kind offices of his pupil, Dr. E. V. L. Brown, of Chicago,

who was studying with him during the past year, we had good grounds for hoping that he would accept it, particularly as he had at different times expressed a great desire to visit the United States. But he did not accept, as circumstances were such that he could not leave his university work at this time, to be absent from it so long. No invitation was extended to any other foreign colleague. I trust, however, the character of our program is such that it will not only commend itself to you, but will again indicate the high scientific position which American ophthalmology occupies.

It will be further noticed that the number of papers has been considerably lessened. This has been done in accordance with the judgment of your officers, and also with the approval of the officers of the Association and of many members of the Section. The attempt was made to restrict the number to twenty-five, but this limit has been slightly exceeded. We believe that a program is sufficiently long with twenty-five papers and the discussions; by limiting it to this number the sessions will be shorter, and more time may be given to social intercourse and recreation, which are essential factors in making our meetings attractive.

Another innovation that will be noticed is the adoption of the recommendation of our chairman last year, Dr. W. H. Wilder, who said:

> We make a plea for the application of the principles of scientific reasearch to clinical ophthalmology; a plea for organized effort of ophthalmologists in this country to work out certain questions that can be answered only by the accumulated experience of many men.
>
> Many questions and problems in ophthalmology remain unanswered and unsolved. Some of them may not be answerable. Others are of such a character that they can be answered only inductively and after the accumulation of a vast amount of evidence and data. No one man can make observations enough to solve some problems, but a number of men working along previously determined lines may accomplish a great deal.
>
> To this end special committees consisting of a variable number of members, which could be increased as desired should be formed to consider certain subjects.
>
> Such committees should, of course, be selected with care and should be composed of men particularly interested in the subject and peculiarly qualified or fitted to conduct or carry on investigations and direct others in similar work. These committees would carefully outline a plan for the study of certain problems, so that all who were solicited to cooperate or who desired to make observations under the direction of the committee might work along the same line. The committee might increase its number, if desired, so that for some subjects the number of colaborers might be unlimited, but all should work according to a preconcerted plan.

In inaugurating the movement to collectively investigate various problems and questions in ophthalmology as suggested by Dr. Wilder, three committees have been appointed, each in charge of a permanent chairman with power to select his associates and to direct the work, and each to be continued as long as it seems profitable or desirable to do so. Each committee is to report to this Section at its annual meetings. One committee has been appointed on ocular tuberculosis, with Dr. William H. Wilder, of Chicago, chairman; one on questions concerning the ocular muscles, with Dr. Lucien Howe, of Buffalo, chairman, and one on operative treatment of papilledema dependent on increased intracranial tension, with Dr. G. E. de Schweinitz, of Philadelphia, chairman. There is no doubt that the work of these committees will be so productive of good results and will so materially concentrate and advance our knowledge of the subjects studied that other committees will be organized from time to time in the future.

One other committee has been appointed from this Section with Dr. Casey A. Wood, of Chicago, chairman, which has for its purpose the cooperation with a general committee in the important task of revising the United States Pharmacopeia. The reports of the first three of these committees constitute a part of this meeting's program.

Another feature of the program presented to-day is that it is not only American, but the subjects of the papers, excepting those of the committees, are entirely voluntary, and are chosen by the contributors from among their most special experiences and studies. It is believed that such a program has a variety, freshness and value that will make it as welcome to you, for once at least, as one made up, more or less largely, of papers on assigned subjects. It gives ample proof, also, that this organization possesses resources which, when properly conserved and utilized, add most substantially to the growth and advancement of ophthalmologic knowledge.

In conformity with the rules of this Section, I should, perhaps, recall the essential advances that have been made in ophthalmology during the past year; but this has been so well and fully done by the ophthalmologic year-books of Jackson and of Wood, and by the English and American ophthalmologic periodicals, and especially in the summaries given by Mr. Sidney Stephenson, of London, in the *Ophthalmoscope*, that I regard such an undertaking as superfluous, and shall therefore omit it. There is a subject, however, which it seems to me is of pressing importance, and which I take the liberty of briefly discussing here to-day, viz., the ophthalmologic qualifications which should be demanded of the general practitioner and of the specialist, respectively.

A most humiliating fact in medicine to-day is that ophthalmology, one of its most important branches, is regarded too indifferently by many medical faculties, is a voluntary subject of study by students, and is inefficiently practiced by the physician. Specialism, also, is too often entered on with insufficient preparation.

INSUFFICIENT OPHTHALMOLOGY IN GENERAL PRACTICE

In general practice, how often do we find the physician self-condemned by his own words, "I do not pretend to know much about the eye," and also by his failures even in the ordinary affections of the eye. Ocular diseases are therefore unrelieved, distress and suffering are prolonged, defective vision is acquired, blindness is produced and eyes are lost, all of which might have been largely prevented had even a moderate amount of knowledge of diseases of the eye been applied to diagnosis and treatment, or had the physician obtained competent and seasonable counsel in difficult or obscure cases, or referred them to a specialist for treatment.

In cases of refractive errors and muscular imbalances of the eye with their manifold reflexes, the physician is more at sea than in ocular diseases, and is unable to do anything for them. Such patients voluntarily or by the advice of the physician consult the ophthalmologist, or more frequently the optician, whom he often recommends as competent and trustworthy. The physician's attitude, therefore, is favorable to the optician and leaves almost an open field to this aggressive layman, who appropriates to himself the practice of an important and far-reaching branch of medicine. You know what deception, pretense, charlatanism and harm

attends his practices. You know, too, what success has been attained by the so-called reformers among his kind in hoodwinking numerous legislatures into bringing into legal existence a misnamed "profession" called optometry, and how this, supposed to be safeguarded by a so-called board of examiners, of which physicians and ophthalmologists, I am sorry to say, are sometimes members, has been used to cloak a perilous ignorance of ocular physiology, pathology and optics. In the meantime, no check has been put on the fraudulent work of the various optical colleges, correspondence and other "schools," as exhibited in their courses of instruction, in the graduation of their candidates, and the issuing of their diplomas. The whole business, from beginning to end, is a prostitution of a part of medical science to those low commercial ideals of trade which are made manifest by the character of the advertisements, periodical literature and work of these men.

For this encroachment on legitimate medicine and the unfortunate results to the public which follow, the profession itself is largely responsible through the physician's own lack of knowledge of a subject which he should understand, and through his fostering and propagating the sentiment that the optician can properly and without danger perform this work.

THE UNQUALIFIED OPHTHALMOLOGIST

As to the professed ophthalmologist, there is also reason to complain. He too often enters into specialism with the preparation afforded only by an undergraduate course of study, and a supplemental postgraduate course of a few weeks. He begins his work, therefore, with inadequate knowledge and personal experience, he is often but little more than a refractionist, has only a superficial knowledge, or none at all, of the pathology of the eye, and has no training for operative work on it, and he assumes the same position before the public and the profession and asks for the same recognition as does his neighbor ophthalmologist who is well trained and skilful. That he must often make most glaring and harmful mistakes in diagnosis and treatment with consequent ill results, is inevitable. In a way he thus becomes more or less a menace to public welfare.

Having before us, therefore, the existing conditions of more or less inadequate ophthalmologic knowledge among both general and special practitioners, with all the consequent undesirable and baneful results, is it not apparent to all that there is need of further effort to improve them? Although the American Medical College Association, the American Medical Association through its Council on Medical Education and other channels, and certain high-grade medical schools have done much to elevate medical standards and to advance medical teaching, yet there is still room for much to be done.

There are two dominant factors in the profession today which are largely responsible for the evils of which I am complaining. One is the excessive zeal for specialization, resulting in the effort to sever the relations of certain medical subjects from general medicine and practice, and to set them apart by themselves with an isolation and exclusiveness that is inherently unjustifiable. This is especially observable in ophthalmology, and one of the consequences is that the subject is either neglected entirely or treated indifferently by the student, and is more or less disregarded or ignored by the general practitioner.

The other factor that is responsible for much injustice and inefficiency in ophthalmology as a specialty is that no standard of legal qualification is required for the practice of it, except that of any legal practitioner. It is to help change each of these conditions that we have a duty to perform.

WHAT MAY BE DONE

First, we can strive to disabuse the public, the profession at large, and medical school authorities of the idea that ophthalmology is so suited to exclusive study and practice, so separate from other departments of medicine, so technical and difficult to understand and apply, as to require special preliminary preparation and a peculiar fitness on the part of the student and physician, that it may, and even should be separated from general medicine, and made only a voluntary subject of study and practice. The fact is, ophthalmology can not in justice to general medicine, as well as to itself, be thus made an exclusive and isolated field because of the manifold relations of the eye to other parts of the body. The subject, instead of being difficult to comprehend and apply, is quite the opposite. The eye is readily accessible to observation; preliminary qualifications different from those which should be required in any other branch of medical study are not needed; its anatomy, functions, pathology and relations are easily understood; the diagnosis and treatment of its diseases and abnormalities need no more skill than those of other organs; when earnestly pursued, no proportionately longer time is required than by any other important subject; the subject may be studied with equal facility; and it offers a field of unusual attractiveness and interest. It should, therefore, continue to be regarded as an essential part of general medicine, and to hold its proper place in study and in general practice. If the physician shall have failed to qualify himself to treat all ordinary diseases of the body, including those of the eye, he renders himself one-sided in his intellectual equipment for practice, his medical judgment is distorted, and his usefulness is abbreviated.

Again, of all diseases and abnormalities, those of the eye are the last to be excluded from the physician's practice, and for several reasons. They are of frequent occurrence, and they are found everywhere. People afflicted with them are entitled to the same attention from the family physician as they receive in other diseases and he should be prepared to give it. Such patients may also be far distant from an ophthalmologist, may not be able to pay either his fees or the expenses of travel, and they should not be put to unnecessary trouble, inconvenience and expense. Again, with ordinary knowledge of ophthalmology the physician will be able to give timely aid in these diseases, to administer preventive, as well as curative treatment, to make diagnoses that will determine benign from severe affections, and to judge properly when his efforts should be reinforced by consultation with a specialist, and when the specialist should have full charge. The physician will also be prepared to detect errors of refraction and to correct, at least, their simpler forms—not so difficult a task as is believed. Such services, moreover, are much more trustworthy than those of the optician or optometrist with his medical ignorance, for many cases of poor vision are not due to errors of refraction, but to ocular disease which the physician would recognize and the optician would not. Finally, in giving his ophthalmologic services to his patients, he may not, and perhaps should not, be remunerated by specialists' fees, but he will reap the same rewards and emoluments that come from other departments of his practice. In the meantime, he will

add to the clientele of the ophthalmologist by the difficult and obscure cases which he refers to him. In this regard, the physician will be a help to the ophthalmologist, whereas the optician (optometrist) is a drawback. Furthermore, the physician will be a powerful factor in stamping out the insidious growth and dangerous charlatanism of the "eyesight specialist" or the optician, and in the end the whole medical profession, including ophthalmologists, will be honored and dignified, and the public will be enlightened and benefited.

Accompanying a change of public and professional sentiment in favor of improving ophthalmology in general practice, there should be a corresponding change in teaching by which the undergraduate medical student is required to acquire an amount of ophthalmologic knowledge sufficient to meet his future needs as a general practitioner.

I assume that the school which he attends has no other function than to teach young men and women to be general practitioners, disregarding all thought of specialism of any kind. In such an institution ophthalmology should occupy a position in its curriculum corresponding to its importance in medical practice, and it should be taught and studied with the same motive and fidelity as other leading branches. This, or any other important subject should never be made voluntary, for such volition, in the majority of cases, leads to indifference or to entire neglect. On the other hand, it should be made obligatory. Having completed the required course, a successful examination in the same should be made one of the essentials to graduation. How much of ophthalmology should be included in an undergraduate course is a debatable question, and should be left to an authorized committee to decide. It should be sufficient, however, to qualify the physician to treat all ordinary and infectious diseases of the eye, to distinguish between mild and severe ones, to treat injuries of the eye which are superficial and uncomplicated, and to examine for refractive errors and correct at least the simpler forms.

While such study may be pursued with sufficient thoroughness to insure the desired qualification, yet I would add a supplementary examination by the several state boards of medical examiners, covering the same ground, the successful passing of which should be one of the conditions for license to practice. This requirement of the state licensing boards is advisable, as it puts a check to any neglect of the subject on the part of medical schools, and its influence over the average student is more potent in maintaining proper standards than almost all others.

While urging that a reasonable amount of ophthalmology should constitute a part of general medicine and practice, I still urge as emphatically that ophthalmology as a specialty is also most commendable and is to be upheld and cultivated.

It is unfortunate, however, that no qualifications for practice have heretofore been required of the ophthalmologist other than those of the general practitioner, but his sense of justice, his pride, and his taste for the subject have stimulated him, in a large proportion of cases, to prepare himself creditably for his work. The absence of these and the presence of a dominant spirit of commercialism have, on the other hand, caused him to make too much haste to begin his practice, limiting his study to an undergraduate course, with perhaps a few weeks in postgraduate work. He neglects taking the necessary time for study, disregards important subjects, fails to acquire personal clinical experience—in short, he is an unprepared, unqualified specialist—an ophthalmologist only in part. Ophthalmologists are rapidly increasing in number, and the unqualified ones are also becoming correspondingly too numerous. The ophthalmologist, of course, like other specialists, should possess knowledge of his subject much more extended and complete than the general practitioner, and by wider observation and larger experience he should be far more proficient and skilful. Indeed, he should be an expert in this department of medicine. When, therefore, one lacks the necessary qualifications for such a position, he should not be allowed to assume it, both because of the harm he may do to patients and because of the injustice he inflicts on the rights of his neighbor ophthalmologist, who has qualified at much sacrifice of time, energy and money.

In order that protection may be secured against unqualified ophthalmologists, I suggest that the course and subjects of study which the ophthalmologist shall pursue be regulated by law, and that a special board of examiners shall be appointed to act alone, or in association with general boards as now constituted, to determine his fitness, and, if found qualified, to authorize a license to practice to be issued to him.

I will not inflict on you the details of measures which seem to me would secure an adequate amount of ophthalmologic knowledge both in general medicine and in specialism. These can be carefully worked out in the future, if deemed advisable. The one thing, however, more imperative than any other is a proper and trustworthy examination by authorized boards of examiners, the successful passing of which is made the requirement for a license to practice.

In concluding, allow me to recall the question implied in the title of this paper, and to summarize its answer by repeating that the qualifications which should be demanded of the general practitioner are those which would enable him to understand and to treat properly ordinary diseases of the eye, and to examine the eye for refractive errors and to correct its simpler forms. As an assurance of such qualifications, the undergraduate course of study of ophthalmology should be made obligatory, the passing of an examination in it before the medical faculty should be made one of the conditions of graduation, and a subsequent examination in it before the state licensing board, one of the conditions of license to practice.

The qualifications which should be demanded of the specialist are an extended and thorough postgraduate study of every subject essentially bearing on ophthalmology, personal experimental study in the laboratory and personal clinical work in the hospital or in a preceptor's private office. To insure the proper qualifications, legally appointed boards of expert ophthalmologists should examine applicants in such subjects as should be required by law, the result of which should determine whether or not a license should be granted.

I offer these imperfectly expressed suggestions for the consideration of this Section with the hope that they may be accepted. If so, two committees should be appointed to study the subject and to report the details of measures that might be adopted to bring about the results desired; one to make reasonably certain the acquirement of a proper amount of ophthalmologic knowledge by the general practitioner; and another to secure the necessary training and qualifications of the ophthalmologist.

212 Franklin Street.

Original Articles

A PRAGMATIC VIEW OF CHRISTIAN SCIENCE *

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It has been more than once asserted in recent discussions of Christian Science and kindred forms of occult therapy that their therapeutic success is in no way dependent on the theological or metaphysical doctrines on which these systems purport to be based; that these theoretical elements are, in fact, from the point of view of success in healing, irrelevant and unessential. Drugless healing, for example, it is said, is successfully practiced by persons and sects whose religious and metaphysical dogmas have little or nothing in common with those of Christian Science, and, what is still more significant, by scientists who, many of them, do not espouse any religious system whatever, or, if they do, do not connect in any way their therapeutic practice with their religious beliefs.

The facts referred to are, as facts, sufficiently authentic, and I have no intention to controvert them; but the conclusion drawn from them is, it seems to me, too sweeping and even misleading on a fundamental point in our understanding of the very striking phenomenon of mental healing. To make my objection clear, however, will necessitate some preliminary exposition of a theory of drugless healing of critical importance, the theory of mental suggestion; a theory which is not in any sense a special theory, but which may, in its broad features, at least, be assumed to be the common possession of all technical students of applied psychology.

The salient features of this view are not difficult to outline. It is a mere commonplace to-day, and perhaps always has been, that one's mental state, especially on its emotional side, has much to do with one's physical condition; that, in particular, emotional states, such as anxiety, grief and fear, depress and interfere with certain bodily functions, like heart action, respiration and digestion, on which bodily well-being is so intimately dependent, while opposite states, like cheer and mental tranquillity, have a tonic effect on these important functions. The production, therefore, in the patient, of an attitude of hopefulness and confidence may, especially in the lighter forms of neurosis, brought on, perhaps, by worry or mental depression, be an important factor in restoring the patient to a more normal condition, and may, in crucial cases, in which life is hanging in the balance and every condition becomes important, be decisive in causing the patient to rally and survive. These truths have in their essential phases become a part of the proverbial wisdom of the race, and they doubtless need, on account of their great practical importance, to be systematically re-emphasized. They have latterly, indeed, been exploited *ad nauseam*, and their importance has, by a sort of mental epidemic, been exaggerated to a point of caricature. But they have been practiced by every competent physician in every community since the beginning of time, and have been claimed as the precocious discoveries and the exclusive possession of certain propagandists simply because they have proclaimed these commonplaces from the housetop, and, as is usual with such performances, to a large hearing and devoted following. The results of these important "discoveries" are forthwith carefully conserved and industrially propagated by Christian healing circles, classes in psychotherapy, temples of health and other unprofitable aberrations.

The condition of hopefulness may operate in two ways in restoring the patient to health: first, directly, by the tranquilizing effect on the nervous system, and, second, by causing him to resort to the usual means of restoring health, such as exercise, change of scene, dieting, the use of medicine, etc. On this point it is, however, important to observe that the effect of overconfidence may be the precise opposite to that suggested, and may, especially where intellectual bias against the use of physical means is operative, cause the patient to neglect these means, and thus, in spite of some gain from a hopeful state of mind, deteriorate from what should be plainly diagnosed as wilful and criminal neglect. The fact that individuals responsible for such cases can, by hiding behind the ramparts of religious tolerance, escape social censure and legal prosecution furnishes a striking comment on a brand of idealism which America can surely spare without substantial loss to an otherwise sane and hardy civilization.

Disregarding, however, the occasional danger from overconfidence, let us say that the cases of healing by Christian Science, when they are genuine, are directly due to a hopeful mental condition induced by mental suggestion to the effect that the patient's disease is nonexistent, or that its effects will, in any case, be rendered nugatory. Now what I wish to urge in this pragmatic brief for Christian Science is that the manner of inducing this hopeful mental condition can be considered optional only when the question is considered in the abstract, but will, in the concrete case of a given patient, be pretty definitely determined by the character and previous education of the person in whom the expectant belief in health is to be induced. The belief in the result must be made plausible in a way best adapted to the patient. In the hypnotic condition this is not necessary. The hypnotic trance is a favorable condition for implanting suggestion, for the reason that the suggestion is in little danger of being rendered ineffective by spontaneous reflection, the associative mechanism being temporarily inoperative, and reflection being, therefore, in abeyance. But if the belief is to be induced in the waking state it can be done only by making the object of the belief appear possible or probable. How this is to be done must be decided separately in each special case, and the appropriate manner will accordingly be as various and versatile as human nature. One will believe on the mere assertion of another person who is supposed to possess special knowledge or power; another will base his faith on a theory of magnetic fluid or the efficacy of sacred relics or shrines; another will rely on the merit of saints or the special intervention of a prayer-answering divinity; another on a physiologic theory of the effects of exercise or the action of drugs; while still another will base his belief on a high-sounding and mystical system of metaphysics according to which there is "no pain in Truth and no truth in pain; no nerve in Mind and no mind in nerve," and according to which "Life, God, Omnipotent Good, deny death, evil, sin, disease." Now when you combine, as in the last instance, a pretentious and mystical system of metaphysics with theological conceptions which a long and cumula-

* The term Christian Science is here used as a merely conventional designation, and the use of it does not of course in any way commit one to the highly fantastic dogmas for which the cult stands. The term Eddyism, were it domesticated, would be much preferable to the egregious misnomer in current use.

tive social tradition has invested with peculiar sanctity and force, you have an instrument the suggestive value of which for a certain type of minds (their name is legion), whose native mystical bent has not been corrected by systematic education in the methods and results of modern science, is well-nigh incalculable. Of course, what is one man's meat is another's poison, and whether meat or poison will depend entirely on the particular individual's character and intellectual bias gained through circumstance, deliberate self-discipline and the educational activities of the group of which he has been a member. But if a given individual is so constituted that no violence is done to his total experience by the metaphysics of Christian Science, then this system is perhaps the most effective and conceivably the only means to secure, in this individual, the state of mind requisite for health and happiness. And that Christian Science offers, in a large number of cases, just the aid which the imagination requires, the present great popularity of Christian Science and kindred phenomena abundantly attests.

Considered from the point of view of orthodox science or of consistent thought the value of Christian Science is *nil;* this much, at least, must be as plain as paint. But if it makes as little sense to ask whether a theory is true as to ask whether it is blue (a piece of pragmatic facetiousness) and if the truth of a view is measured by the measure of its success in life and practice, then Christian Science is, on its metaphysical side, a highly respectable candidate for philosophic honors. It is one of those views, many more of which could be named, whose logical value is either negligible or non-existent, but which, nevertheless, seem to serve an important practical purpose, and which, therefore, appear to be justified in cases where the practical demand is more urgent than the theoretical one of making life a rational and orderly whole. Pragmatically considered, Christian Science frequently appears to be right; scientifically it is wrong from beginning to end. And this may be used as an argument for Christian Science or against pragmatism as suits the taste.

My own view (if the reader should care for it) is, to use the striking words of Bradley, that no man ever went about to break logic but in the end logic broke him; and how the inevitable logic of Nature which we call natural law, and which we sometimes affect to despise, sometimes revenges itself on us and breaks us has been already suggested in a painful reference from the further elaboration of which I must be excused. The reader will doubtless be able to supply concrete illustrations from his own experience if he wishes to do so. It is powerfully illustrated by that mute but mighty army of men and women who, though not believing in death and disease, have not been able to resist the universal conquerer, and who have often fallen a ready prey to his power because heedless of the manner of his operations, and failing to fight him with his own weapons: those laws of Nature, namely, whose universal and consistent sway proclaims them divine.

Gonorrheal Nephritis.—Stoyantchoff, in the *American Journal of Urology*, May, states that the treatment of gonorrheal nephritis differs little from that of any case of acute nephritis. The diet should consist exclusively of milk; diuretic and alkaline drinks may be added. As a urinary antiseptic he advises salol—2 grams daily. If the pain is great and the albuminuria is moderate, opiates may be given without fear of aggravating the renal lesion.

WHOOPING COUGH FROM THE POINT OF VIEW OF PUBLIC HEALTH *

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Whooping cough has so long been treated by the laity and also by some physicians as a joke that I would hesitate to bring the subject to your attention, if I did not feel that it is high time for the medical profession to put aside this erroneous idea and give serious thought to checking this large source of infant mortality. That there is some excuse for the popular impression that whooping cough is not a serious disease is shown by the following quotation from one of the older editions of Strumpell's "Text-Book of Medicine.":

> The prognosis is favorable with the majority of children, if they are previously strong and healthy. Very young children are in more danger than older ones. There is danger if secondary pneumonia develops and if the general nutrition and strength of the child suffer.

This is the teaching I received in college, and it is certainly enough to give the student the impression that whooping cough is a disease not to be greatly feared. The feeling that whooping cough is a trifling affair seems to be due in the main to two reasons. The first is that in children over five it is seldom fatal, 96 per cent. of those who died from this disease in 1906 having been under that age. The second is that the patients usually die from some terminal complication, most often from bronchopneumonia, which, according to Holt, is responsible for two-thirds of the deaths from whooping cough and is often put down as the cause of the death without reference to the previous disease. But this, of course, is not the proper classification of the death, for the bronchopneumonia would not have occurred without the whooping cough and is entirely secondary to it. This is likewise true of the diarrheal diseases, the convulsions, and the marasmus which frequently come at the end to carry off the whooping-cough patients. On account of this erroneous classification, our mortality from whooping cough, which, as I shall show, is now far too large, seems smaller than it is, though how much smaller it is, of course, impossible to say.

To prove to you that whooping cough is really a very serious matter, I think it will be advisable, before going farther, to give a few statistics in regard to the mortality from this disease, though this varies greatly in different cities and in different years, for, to quote the census reports for 1907, "whooping cough, like scarlet fever and measles, seldom shows an unbroken high prevalence from year to year in a given city, but fluctuates with high rates for a year or two and then abruptly declines." It nevertheless nearly always causes more deaths in the registration area than measles or scarlet fever, and in 1907 caused sixty-five times as many deaths as smallpox. In 1906 there were 6,324 deaths attributed to whooping cough as against 4,856 deaths in 1907, and in both years typhoid and diphtheria, alone of the epidemic diseases, gave a greater mortality. "Yet the United States occupies a somewhat favorable position among the nations with respect to its death rate from this disease," the rate in some of the European countries being many times that in this country. It is interesting to note that in ten years in New York City whooping cough killed 3,200, while in the same period only 3,430 deaths were attributed to typhoid. To come

* Read before the Richmond (Va.) Academy of Medicine and Surgery, May 25, 1909.

nearer home, we find that the highest death rate in 1907 was in Lynchburg, while Dr. E. C. Levy, in his "Annual Report of the Health Department of Richmond," says:

It is not generally recognized, either by the people or by the medical profession, that measles and whooping-cough are the two childrens' diseases that are especially fatal in this part of the country, far exceeding, as shown by our own statistics, scarlet fever, which is ordinarily regarded as much more to be dreaded, and also exceeding diphtheria since the general use of antitoxin and proper quarantine regulations, based on bacteriologic methods.

Let us now take a general view of the situation and see what seems to be the cause of this large death rate and what is being done to reduce it. I think the first reason is the general impression that whooping cough is a comparatively mild disease which all children must have, and that the sooner it is over with the better it is for all concerned. On account of this belief, there is often no attempt made to protect children from infection, and people whose children have whooping cough see no reason why they should be inconvenienced in order to save the children of their neighbors. For this state of affairs I believe the medical profession is primarily to blame, for we have not warned the public sufficiently of the danger to young children and very often have told the parents to keep children with whooping cough out of doors or to send them to the park; while we have failed to warn them not to let these patients come in contact with other children. As a result we not only find children with whooping cough in the streets and parks, but they are taken without compunction on the street cars, trains and steamboats, and are even sent to visit other children in their homes. When we consider that over 95 per cent. of the deaths from whooping cough occur before the fifth year, and that consequently we could save almost all the children who die of it, if we could merely keep them away from direct infection till they were beyond that age, we can appreciate how criminal our present carelessness is. There are, however, various things that make the segregation of whooping-cough cases very difficult. The older children do not feel very sick and want to run and play as usual, though they can spread the infection at any time during the six or twelve weeks that the disease lasts. Besides it is very necessary for these patients to get outdoor air, and in getting this great care must be exercised to keep them away from other children. Furthermore, the infectiousness begins with the very onset of the disease, so that other children are frequently infected long before the diagnosis of whooping cough is made in the first patient. Consequently the problem of lessening whooping-cough mortality presents many difficulties which so far have not, to my knowledge, been aggressively attacked by any health department, for, as Dr. Chapin, of Providence, says, "no one has suggested any efficient method of combating whooping cough." The patients themselves are excluded from the schools when the disease is fully developed, but their brothers and sisters are allowed to continue their studies through the possibly most infectious catarrhal stage, during which period they are almost sure to infect schoolmates with infant brothers and sisters at home. Further than this exclusion from the schools I know of no public measures for hindering the spread of whooping cough.

In regard to prevention, Forchheimer very pointedly remarks: "In few diseases can so much be done by prophylaxis; in few is so little done"; for from a practical standpoint whooping cough seems to be only directly infectious, though a few cases are on record which seem to have been carried by a third person. Therefore, though it may sound presumptuous for me to make suggestions in regard to controlling a disease, for which "no one has yet suggested an efficient method of combating," I nevertheless think it is time for some one to present plans which can at least call forth criticism, if they are not capable of standing the rigid test of actual use. I would base my plan of attack on the propositions that over 95 per cent. of the deaths from whooping cough occur before the fifth year, that after this age the disease is comparatively mild, and that in consequence we can reduce the mortality to a relatively unimportant figure by merely protecting the children under five years from direct exposure. The first step in this direction is to teach the people that for young children, and more especially for infants, whooping cough is one of the most fatal diseases, but that their children will be comparatively safe if they can only ward it off for a few years by keeping them away from children with the disease. It is, therefore, a campaign of education that we must carry on, though not nearly so difficult a one as that which is now being waged against consumption. And, by the way, we should be able to use some of the well-organized forces engaged against tuberculosis, for whooping cough is an undoubted predisposing cause of tuberculosis in children. The health departments should then begin this work of education, and they should begin by seeking the advice and hearty cooperation of the physicians of their respective communities, for without this the work will be vastly more difficult. Having done this through the medical societies or by letter, let the people be warned of the danger to young children from whooping cough, not only at the beginning of the campaign, but every time the disease starts up in a city or in any fresh section of it. Having told the people that whooping cough is more fatal than scarlet fever and smallpox, let the health departments prove that they believe it themselves by treating whooping cough in much the same way that we treat other contagious diseases. Of course, it will be impracticable as well as unnecessary to quarantine a whooping-cough patient in one room, as we do scarlet fever, diphtheria and smallpox, but a modified quarantine should be instituted in all cases.

The first actual step to be taken with the individual cases is to see that they are reported as promptly as possible to the health department. The house should be placarded, as much to make the parents feel that the case is serious as to warn friends and neighbors of the presence of the disease. A medical inspector should then go to the house, give the people instructions as to the seriousness of the disease with young children, as to how to prevent its spread, the probable time the contagion will last. He should also have printed instructions to supplement what he has said. The instructions as to quarantine will, however, have to be modified to suit the cases and the circumstances of the family. Thus children that live in houses with yards and porches, ample enough to provide the very necessary fresh air, should not be allowed to leave the premises. Less fortunate children might be allowed in the streets and parks, if they wore conspicuous ribbons bearing the word "whooping cough," but this privilege should be withdrawn if they were found to be purposely mixing with other children. A still better place for these children is a special hospital outside of town, where they could get plenty of fresh air and good food, for this is the only sure way of saving the babies of the tenements from infection. All large cities should have these whooping-cough hospitals,

and it speaks very badly for America that we have no place to put these children, who frequently must be kept at home to infect the others in the family. Not only should a medical inspector have the right to send to this hospital all patients that he does not think can be cared for at home, but also any patient who breaks the quarantine rules established by him should be sent to the hospital, no matter what the financial circumstances of the family. Not only should the whooping-cough patient be withdrawn from school, as seems to be the universal custom, but the other children in the family should be excluded for two weeks after being separated from the patient, and this exclusion should be continued, if they have even the slightest coughs. Any pupil who has been exposed to contagion and who has a cough should be immediately sent home by the teacher, who should also notify the health department. In this way one of the greatest sources of infection, the patients who have not yet "whooped," will be nearly eliminated from the schools.[1]

It is frequently easier and better for people with the necessary means to send their young children away from the house, which contains a case of whooping cough, but these children must be watched and kept away from other children as soon as any suspicious cough appears.

The placard and the quarantine should not be removed from the house, if we follow the rule laid down by Forchheimer, "unless six weeks from the onset have elapsed, until the true whoop shall have disappeared entirely and until expectoration shall have practically ceased." The room occupied by the patient should then be disinfected as much for educational purposes and for justifying the placarding and quarantine as for the removal of contagion left in the room.

Another most important prophylactic measure lies, I am afraid, in the main, beyond the reach of the health departments; I mean the early diagnosis and the consequent prevention of infection from cases in the catarrhal stage, for until we are certain of the bacterial cause of the disease and can diagnose it as we do diphtheria, we shall have to depend on the individual observations of the family physicians, but the health authorities can help them by warning them of the presence of whooping cough in the city as soon as the disease is reported. Thus warned we should not wait for the "whoop" before telling the parents that the disease may be whooping cough and that they consequently must be careful not to spread it. In such cases a dry cough with practically no chest signs, little or no rise of temperature and a lymphocytosis is enough to make a diagnosis; and this early diagnosis may be enough to stop a considerable epidemic. Nothing is more important than this early diagnosis and early warning from the doctor who is called in to look at the child; and the health authorities, I am sure, can count on this cooperation on the part of the physicians, for without this early diagnosis the disease can spread to a considerable number of children before actual public health precautions can be taken.

Of course, I do not claim any originality in the methods I am suggesting, for they are being used in various other diseases. What I do maintain is that they should even *now* be applied in a rational way to a disease, which is one of the largest sources of infant mortality and which at present we are absolutely neglecting. The public is educated to demand protection from smallpox, but absolutely uneducated as to the possibility of preventing almost all the deaths from a disease which is now killing sixty-five times as many people as smallpox. It is up to us physicians, but more especially up to the health departments, to open the eyes of the people in regard to whooping cough and teach them to prevent what under the circumstances seems a very shocking mortality.

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1. Attention has recently been called to the number of cases of measles and whooping cough contracted in the kindergartens. So it is questionable from a public health standpoint whether these schools should be allowed to take pupils under five years of age.

SOME THOUGHTS CONCERNING SLEEP AND DIGESTION

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Let me have men about me that are fat,
Sleek-headed men, and such as sleep o'nights.—*Shakespeare.*

The devout psalmist sang, "He giveth His beloved sleep"; old Homer exclaimed, "Sleep is the gift of God"; the poet Young wrote of it in his "Night Thoughts" as "Tired Nature's sweet restorer," and also:

Man's rich restorative, his balmy bath
That supplies, lubricates and keeps in play
The various movements of this nice machine.

Depew calls it "the solvent of longevity, health and work"; while Henry Clews, the financier, said recently, "Sleep means everything to a man—good health, good looks, will-power, and self-confidence." Wise men from Socrates to Russell Sage have advocated spending one-third of the twenty-four hours in bed. All this shows a deep appreciation of this restful attribute among all ages and conditions of human thought.

Sleep, as a "balm to hurt minds," has been thoroughly considered by the neurologists, and, as a desideratum in all acute and continued diseases, will be found mentioned frequently in the various works devoted to therapeutics.

As to the actual influence of sleep on digestion, however, there is some conflict of opinion, and I shall endeavor briefly to cover the subject in a manner helpful to those interested in practical dietetics.

It is a well-known physiologic fact that the elimination of carbon dioxid and absorption of oxygen are diminished during sleep, mainly because the muscles are less active.

Tigerstedt places the ratio of metabolism between the sleeping and waking state as 100 to 145, but asserts it to be dependent on cessation of voluntary movements: "for it may reach just as low a level in the waking condition, if the muscles be completely relaxed and every voluntary motion suppressed."

While other secretions are diminished during sleep, this does not apply to those of the digestive apparatus. "It is sometimes stated that the digestive secretions are diminished during sleep, but the statement does not rest on satisfactory observations, and may be doubted" (Howell). "Sleep does not exercise the least influence on the secretory work of the gastric glands" (Winfield Hall).

No one would deny that a baby thrives best, and puts on weight most rapidly, when he can sleep soundly after each full meal from the maternal fount. It is a frequent custom among those who perform arduous physical labor to take a sound nap during the noon hour immediately after eating; and some of the finest specimens of muscular development that I have observed have been those who went to bed promptly after eating a hearty supper, and just as promptly went to sleep.

As to the movements of the stomach and intestines during sleep, those movements are to all intents and purposes as active as during the waking hours, less the stimulation of extraneous impressions produced by muscular exercise or the play of emotions. Some physiologists claim that gastric and intestinal mechanisms are abrogated during sleep, but Dr. W. B. Cannon, in reporting some of his investigations on animals, writes: "It is worthy of note that nearly all the animals curled up and slept during the time between observations; nevertheless, the progress of food through the intestines continued. The statement is also made that at night, even without sleep, the intestines are almost entirely at rest; that this is their normal time for repose. I have seen both large and small intestines actively at work, however, from half past nine until half past ten at night." These statements I have several times personally verified.

One qualification should in fairness be allowed, and that is the lessened influence of the reflexes during sleep, especially deep sleep. The following from Landois, while not entirely in accord with some of the conclusions drawn, calls attention to the diminution of reflex action, affording a basis for a practical deduction later on: "During sleep there is a reduction in the activity of gastric and intestinal movements and in the secretions which indicates a lessening in the activities of the respective nerve centers; and the diminished reflexes indicate a lessening in the activity of the spinal cord." With the last statement I am in accord, but the preponderance of proof would permit us to assume that during sleep the gastric and intestinal secretions are poured out with unabated freedom, and that the mechanics of digestion progress in an orderly manner. We must not, however, lose sight of the decided psychic influence for good or ill exercised during the waking hours. That pleasureable sensations may augment the flow of gastric juice, even when no food reaches the stomach; or that disgust may check its secretion has been amply proved by Pawlow and others. The fragrant cigar after a savory meal, coupled with peace of mind and pleasant society, lends a psychic aid to digestion which is entirely absent when the reflexes are dulled by sleep. Again, that fear may cause peristalsis is only too well attested by many soldiers who feelingly remember their "hurry calls" on the eve of their first battle.

Another point to consider is the motor power of the stomach. I have found that in four out of seven duration tests, whereas the stomach would barely empty itself in three and a half waking hours, it was not quite empty if the subject observed had been asleep part of the time. This number is too small to be conclusive, but it is strongly suggestive of the rôle the waking senses may unconsciously play in assisting this viscus to perform the mechanical part of its task.

When the brain is alert, the reflexes on guard, and the voluntary muscles at work, each department of the human economy is calling for its quota of innervation and blood; these different departments are exacting their tribute from the constructive forces, and turning over to the excretory organs the products of combustion and waste. During this period the digestive department can draw only a "working interest," not being permitted to put away any appreciable surplus, until the day's activities are ended, sleep stills the voluntary movements, decreases the carbon dioxid output, and makes the least demand on the involuntary vital mechanism. It is then that Nature, our industrious handmaiden, begins her constructive housekeeping. "She does it in an orderly cooperative way, following a regular method of work in repairing waste, actively forming new tissue, and giving just the proper amount of care and nourishment required of all parts, both mental and physical, in regular sequence.

When Shakespeare wrote of "fat men who sleep o'nights," he recognized a principle patent to every one; for those who sleep much, thereby allowing the plentiful recuperation of both body and nerves, are generally rotund and cheerful. Dickens' fat boy, so characteristically portrayed in Pickwick papers, might be cited as a "near-classic" illustration that there may be as much truth in the injunction, "Sleep and grow fat," as the old saw, "Laugh and grow fat."

It must not be understood that I advocate heavy meals at night, or articles of food calculated to tax the propulsive power of the digestive canal. In the young and vigorous, in whom the muscle fibers are elastic, and the nervous system unimpaired, little fear need be entertained but that a meal will be cared for at any hour, though habitual overindulgence in eating at unseasonable times, like any other abuse of the bodily functions, will exact its toll of punishment sooner or later. In the aged, however, or those with sluggish motor force, or hyperesthetic nerves, it is best not to place too much work on the stomach and intestines during the hours alloted to sleep.

A certain amount of food in the stomach, the digestion of which, in drawing from the brain a portion of its blood, keeps busy the nerve centers concerned, indirectly quiets other nerve centers which otherwise might exert a wakeful influence. Many sufferers from insomnia well know the happy effect produced by taking hot milk or cocoa, or a light repast just before retiring.

The following are some general suggestions as to dietetic recommendations in relation to sleep:

The young infant can not get too much sleep, and this is best attained by filling his stomach at stated intervals. Vigorous, growing children and those engaged in manual labor thrive on a full breakfast and dinner, these two meals containing most of the daily quota of proteids. The supper may be plentiful in quantity, but should consist of such articles as bread, milk, cereals, eggs, fruits, etc., which do not unduly stimulate the nerve centers by their metabolic products. Soups, rich extractives and solid proteids also cause the bladder to be filled with urine rich in waste products and very acid, this being a factor worth considering.

Those who labor with their brains, or skilled artisans whose crafts demand mental tension and but little muscular effort, will find their efficiency best subserved by a light breakfast, a slightly more plentiful lunch, and at the close of the day's work a generous meal, provided that after it three to five waking hours are allowed, so that the psychic reflexes may have an opportunity to contribute their share to the processes of digestion.

For the leisure class or those who keep late hours and often burn the candle at both ends, it is advisable to take a light repast in bed at 10 a. m. to 12 noon, a hearty dinner at 5 to 8 p. m., and a moderate supper, with not too stimulating or alcohol-containing beverages at 11 or 12 p. m.

The foregoing suggestions are intended to be elastic, requiring such changes as may suit individual habits or environment, and the thoughts herein are offered as a small contribution to an interesting subject and one not too well understood.

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HE RESPONSIBILITY OF THE PHYSICIAN IN CASES WHICH ARE A MENACE TO PUBLIC SAFETY *

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In a paper by Dr. Philip Coombs Knapp entitled "General Paralysis as a Menace to Public Safety in Transportation," which appeared over a year ago,[1] it was stated:

There can be little doubt that if men in responsible positions on our railroads were subjected to thorough examination by competent neurologists at regular intervals many of these cases of general paralysis and other brain diseases would be detected and the dangers attendant upon them be averted. Many railroads demand a careful examination of all applicants for employment; but when this examination is once passed, the man is not examined again unless some striking disturbance is noted. The average railway surgeon, however, will inevitably overlook the slight but significant symptoms that reveal grave brain disease to the neurologist, and, even if he were capable of detecting them, it is only by examinations repeated at regular and rather frequent intervals that the onset of these diseases can be detected and the danger averted. These affections are not responsible for all the cases of negligence that cause railway accidents, but they form one factor which can be eliminated. The state requires that certain railway employés shall pass examinations to prove that they can tell red from green. Is it too much to require them to pass periodical examinations to prove that they can instantly understand the different meanings of red and green and act promptly on that knowledge?

In the same journal there also appeared an editorial on the same subject, in which it was stated that a committee composed of Drs. Knapp, C. G. Dewey and G. A. Waterman had been appointed by the Boston Society of Psychiatry and Neurology to confer with the Railroad Commissioners of Massachusetts and to take such action as they might consider necessary to guard against this danger.[2]

After reading the above I felt that as a civic duty I ought to do what I could to extend the influence of the above movement and as a first step I contributed a note which appeared with additions by the editor, Dr. Edward N. Brush, in the January number of the *American Journal of Insanity.*[3]

I then called on a friend who occupied an important position in one of the railroads of Maryland to urge on him the importance of instituting such neurologic examination of engineers, and others directly responsible for the lives of passengers, as would indicate the early symptoms of organic nervous diseases, such as paresis, that would in their development impair the judgment of the subject and so render him an uncertain quantity so far as safety is concerned. The matter had never been brought to my friend's attention before and it aroused his interest; but I was necessarily passed on to the official whose duty it is to supervise such matters, namely, the chief physician of the road. In the latter's opinion such a procedure is unnecessary for several reasons. The chief of these are:

1. The men would not submit to such an examination.

2. A candidate's rejection for some neurologic symptom not plainly apparent to the subject would bring a strong protest from him which it would be difficult to answer to his satisfaction.

3. Following the candidate's objection there would immediately follow a much stronger one from the labor organization to which he belonged.

The last appeared to be the most important reason to the physician. Probably most of us who are rather unfamiliar with the methods of some labor organizations will fail to appreciate why this last reason should appeal to him so strongly. The same objection appeared to be the chief one to the surgeons of two roads. I feel that perhaps the most important duty we have in connection with this question is the moral education of the men themselves so that they will put aside any selfish considerations and consider the greatest good of the greatest number.

I felt that part of my civic duty was the investigation of the methods of examination used by the various railroad surgeons in order to satisfy myself that such an examination would detect any fairly marked neurologic symptoms, though I could easily understand that the ordinary medical examination could not include a thorough neurologic one.

I regret to say that in none of the three forms of the examination blank submitted to me was there any question concerning the conditions of the pupils, tendon reflexes, station or coordination, all of which seem to me to be important and taken together to give a maximum of information for a minimum of effort.

One blank asked if there was facial paralysis, and if there was serious defect in speech. The surgeon of one of the railroads also assured me that their usual examination included more than was set down, but there was certainly no space on the blank for recording any additional points brought out by the examination, and my experience with men who habitually follow a printed examination blank is that they are not apt to go beyond it.

I suggested to each of the surgeons interviewed that they add to their examination blank some question regarding the pupils, the knee-jerks, station and coordination, but was met with objections similar to those noted above.

None of the surgeons was indifferent to the importance of the recognition of organic nervous disease, but all seemed to think that its recognition would be easy in any dangerous case and that routine examination was, therefore, unnecessary, but the labor organization seemed to be the chief objection.

The results of my investigation of the methods of examination in use by the three railroads may be very briefly summed up as follows:

1. The medical examination is inadequate for the detection of any organic nervous disease.

2. Those in charge of such work are handicapped by the attitude of labor organizations and by the attitude of the ordinary working man.

It may be interesting to describe two cases recently seen, which will serve as illustrations for a number of points which have already been mentioned and for others which are to follow.

Case 1.—*Patient.*—John T. A. S., a white man, aged 43, married, was admitted to the Johns Hopkins Hospital Dispensary Aug. 22, 1908, complaining of his mind being affected. His father died at 64 from the "third stroke," having had the first eight years before. His mother was living and well, aged 76.

History.—The patient is the third of six children. Consanguinity between his parents, or any case of mental or nervous disease in the family was denied. According to the

* Read in the Section on Nervous and Mental Diseases of the American Medical Association, at the Sixtieth Annual Session, held at Atlantic City, June, 1909.

1. Boston Med. and Surg. Jour., Feb. 6, 1908, clviii, 187.

2. As additional testimony to this danger I would refer to the London letter of The Journal A. M. A., Sept. 12, 1908, li, 928.

3. 1909, lxv, 545.

patient, he had gonorrhea three times before his marriage, which occurred when he was 29. Lues was denied; he had two healthy children. His first illness was an attack of typhoid fever at 35, during which he was treated at home and in which he was delirious at times. He had been a moderate user of alcohol, but had used tobacco very freely, probably chewing to excess. He stated he had been moderate in his sexual indulgences. History was negative as to religion and social disposition. From 21 until 42, or until ten months before admission, he was an engine man for the Baltimore and Ohio, being discharged for causing a wreck by falling asleep at his post. An effort was made to ascertain the amount of damage caused, but this was found to entail more search of records than the subject was worth. It was found, however, that the wreck was a "side-swipe" and probably not very serious and that the patient had been given relief until his discharge two months later. Following his discharge he invested in a small confectionery establishment, but he now thought that he would lose his money. The loss of his position worried him and he stated that he had been irritable for some time. He denied loss of consciousness, but admitted that there had been times when he had not known that he had done things, and forgot what he had gone for when he reached his storeroom. He thought that perhaps he might have been in "a study" at the time of the accident and not asleep, but from a feeling of shame told the railroad officials that he was asleep. From the patient's wife it was learned that since a wreck on June 22, 1903, when he was pinned under his engine for twenty-seven minutes, he had been absent-minded and she would have to see that he took his watch, switch-key and lunch basket when he went to work and that he wound his watch. She also spoke of his changed disposition, saying that he had become irritable, and that at times he did not appear to understand what was said to him and would ask the speaker to repeat what had been said. At times he had "an unnatural look;" "he looks wild and his eyelids look red and swollen." The patient said that occasionally he found that he had done something without having any recollection of having done it.

Examination.—Physically the patient was a well nourished man with a florid complexion. Tongue was protruded straight, was clean and showed slight tremor and slight tongue tic. Speech was negative. Reflexes were slightly below normal. Pupillary reflexes were apparently normal. Romberg's sign not present. Examination in the ophthalmologic department showed a hypermetropia and chronic conjunctivitis, for which he was given glasses and an eyewash. He also complained of tinnitus and was referred to the otologic department, where a chronic catarrhal otitis media was diagnosed and treated.

The man was seen but three times and he probably moved to Pennsylvania, where he expected to receive financial assistance from relatives.

Diagnosis.—From the above history and my personal observation of the patient I am inclined to make a diagnosis of psychic epilepsy, probably of traumatic origin, though I should liked to have had a further period of observation in order to have been quite positive as to the diagnosis.

I cite the case to illustrate three points: first, a nervous disease in an engine man probably caused the railroad two wrecks, and it is probable that chance determined that they were not greater; second, the tests which have been suggested above would not have been sufficient to cause the detection of the disease and, therefore, even were they carried out as a routine, a number of men unfitted to hold responsible positions would continue to hold them; third, it partly shows the mental attitude of the man toward the officials and his mates, he preferring to state falsely that he had been asleep rather than to confess having periods of unconsciousness which he could not explain, and preferring not to seek advice through fear, possibly, of losing his position.

CASE 2.—*Patient.*—Walter J., a white man, aged 48, married, and a captain of a coast steamship, was admitted to the Johns Hopkins Hospital Dispensary Oct. 30, 1908, complaining of nervousness. His family history was negative.

History.—The patient had had three attacks of gonorrhea, had suffered from rheumatism for years, and at one time was alcoholic to a mild degree. He had been operated on for appendicitis ten years previously. He had five children, all of whom were living and well. The patient said that he had been feeling bad for a month and a half, having a poor appetite and being unable to sleep. He denied any attacks of unconsciousness.

Examination.—The patient was a well-nourished and thick-set man with a ruddy complexion; looked a little below his age. He showed a marked speech defect, stumbling over the usual test words. Pupils were regular in outline and reacted rather sluggishly to light. Tongue deviated to the right and was tremulous. There was a marked tremor of the extended hands. Writing also showed a coarse tremor. Gait was rather unsteady and there was some swaying. The right knee-jerk was somewhat more brisk than the left. Later all tendon reflexes were exaggerated.

It is this case which serves as a text for the many questions which may be suggested by the title of this paper.

I did not see the patient at his first visit to the dispensary and when it was found that he was able and willing to pay he was referred to a colleague of mine under whose care he has since been. I have examined him twice at intervals of several months and while at the second examination he showed a considerable improvement, I am nevertheless of the opinion that his is a case of paresis of a slow course. As captain of a steamer he was responsible for a crew of about forty and passengers from 4 to 80. Here was clearly a case in which our moral duty demanded that something should be done to prevent his longer continuing in so responsible a position and he was accordingly advised to take a vacation, which he did; but after several weeks, during which his improvement had taken place, he became impatient of idleness and returned to his position. On account of the libel law of Maryland, which is an extremely delicate affair, none of us felt like saying to the patient that he positively had paresis, nor did we wish to go to the man's employers and warn them. Finally, however, this step was taken and one of us who personally knew the head of the steamship company told him of the case and suggested that the patient be ordered to have a medical examination. Unfortunately this was not done with the finesse that it might have and the patient came back at us for an explanation. Matters were easily arranged, however, and my colleague and another went to the patient's house to make a lumbar puncture. On the result of this, all of us who were interested in the case put considerable faith, and it is therefore extremely unfortunate it should have resulted in a dry tap, due principally to the fact that the patient, who is a large man, was unable to bend his spine and allow the needle to enter.

At the present time the patient is back at his work in a responsible position, but it seems to me that the danger of this course is very slight as he is seen between each trip and has himself been warned to be careful and to turn the boat over to his mate should certain symptoms occur.

I must confess that the pleasure of a trip on his boat would be considerably marred to me by my anxiety lest he make some of those defects of judgment to which paretics are so prone, but the man must make his living and there seems to be no other course to follow.

It seems to me that the simplest thing which railroads might do in order to minimize the danger of using a man who is nervously unfit to run their trains would be to institute tests of reaction time, repeated quarterly perhaps, the stimulus being the display of a red and a green light, the patient to make different movements, which should be recorded by a chronoscope. The same device could be used for steamship captains and pilots, while for those accustomed to follow auditory signals auditory stimuli could be used.

Should an individual show a slowing of reaction a neurologic examination might be made and the cause of such slowing learned if possible. Such procedure probably would be more satisfactory than the recording of the few tests which I have suggested and which would

necessarily be conducted by a number of men who are probably unskilled in the employment of such tests.

The second case history which I have detailed brings up several questions concerning which a great deal might be said. Our action in notifying the man's employers that he was probably suffering from paresis and was, therefore, an unsafe employé may be viewed by many as a violation of professional secrecy. By such action one of us at least made himself liable to a criminal prosecution and to damages. On the other hand, it would seem that by every moral law such action was justifiable.

Considerable time might be spent in discussing the subject of professional secrecy and this paper might be expanded far beyond its present size merely by giving a summary of some of the papers which have appeared on the subject in the past ten years, but unfortunately such a summary would not bring us much nearer to a solution of the question.

By the Hippocratic oath the physician binds himself to secrecy. "My tongue shall be silent as to the secrets which are confided to me and I will not use my profession to corrupt manners or aid crime." The last clause, "to prevent crime," in many instances will serve as an excuse or reason for violating professional secrecy; but in the present case it seems to me doubtful if we can consider that a crime is about to be committed and our only excuse was "the greatest good to the greatest number," and possibly the Golden Rule. I am not quite sure whether even the last will serve us, for while I would feel grateful to any one who would save me from any act by which I might work harm to others, yet I probably would resent such interference if it meant the loss of my position and the impairment of the livelihood of myself and family. So that without spending considerable time in arguing the question, we are reduced to the single excuse of the "greatest good to the greatest number." This must be the excuse for violation of professional secrecy in many cases, but no rule can be given and each case that we meet with must be decided of itself.

Perhaps enough has been said of the moral and ethical side of the question, but considerable more might be added.

On the purely legal side, it must be remembered that in this country each state has different laws in regard to the professional relations which a physician bears to his patient. Before taking any step which entails a violation of professional secrecy it would be well to look up the state law with its definitions and penalties, and thus learn of the risks that will be incurred. It takes but slight study of the literature or but a few moments' talk with a lawyer to learn that each case must be decided of itself and that no hard and fast rules can be laid down.

Becker,[4] in considering the question in quite a narrow sense, concludes with the observation: "In all statutory enactments in a free country the test of the law must be whether it works the greatest good to the greatest number."

"Apply that test to the statutes under consideration in this paper for yourselves, and no doubt you will reach such a conclusion as will be eminently satisfactory to the dictates of professional etiquette, and to the duty that you owe to yourselves, your employers and to the public sentiment."

Tait[5] gives a number of instances which illustrate some of the difficulties which beset the question. His paper is well worth reading.

Nichols,[6] Benedict[7] and McKee[8] give illustrative cases with brief discussions which furnish considerable food for thought and probably will be of greater value to those who desire to look up the matter than the papers previously cited.

Morrow,[9] while dealing with the question in a limited sphere, has written an excellent paper and in the beginning lays down some broad principles which will be helpful to all.

I have not quoted any foreign papers, as the laws of Great Britain and France are quite different from those of this country.

As conclusion to the present paper I would say that if a physician has as a patient a person unfit to hold a responsible position and a menace to public safety he should endeavor to have the patient voluntarily give up such a position, or if circumstances are such that there is no immediate danger the patient may continue in it under observation. If the last is impracticable and if the patient refuses to be guided by medical advice, some steps should be taken to have the patient removed from this position. We physicians should also endeavor to have transportation companies institute such tests as will insure against the employment of those likely to be a menace to public safety.

The Treatment of Cholera.—At the session of the Royal Society of England, Jan. 28, 1909 (*Nature*, February 25), Prof. L. Rogers offered a communication on the composition and pressure of the blood in cholera and the use of hypertonic solutions in its treatment, based on experience in India. The blood of Bengalis has been found by Captain Mackay to contain a higher proportion of salts and a smaller proportion of erythrocytes than that of Europeans, and Rogers has found that their blood pressure is lower. In cholera the enormous secretion of fluid into the bowel drains away the fluid part of the blood and there is a very definite relationship between the amount of fluid thus lost and the severity and mortality of the disease. Injections of normal salt solution (0.65 per cent. of sodium chlorid) into the veins has an almost miraculous effect, but this is only transitory and in the course of a few hours the symptoms recur. It occurred to Rogers that if he were to inject the hypertonic solution of 1.35 per cent. there would be less likelihood of the diarrhea recurring. This treatment simply revolutionized the results and instead of being a rarity the recovery of collapsed patients is a rule. In severe cases the proportion of chlorids in the blood falls below normal in spite of the concentration from loss of water, and he therefore sometimes uses a saline solution of 1.65, but usually 1.35 is sufficient. In bad cases the coagulability of the blood is greatly reduced and he now generally adds three grains of calcium chlorid to a pint of saline solution. Uremia is likely to occur in the reaction stage of cholera and is associated with a comparatively low blood pressure; and the hypodermic administration of adrenalin and digitalis is indicated for the prevention of this serious complication.

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Clinical Notes

FLANNEL BANDAGES FOR CLINIC USE

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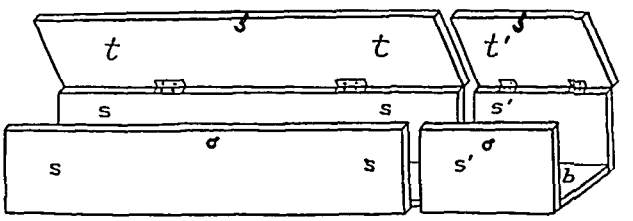
Expense of material is frequently an important factor in providing generously for use in a clinic. Conditions requiring the application of a firm even bandage, for which the usual cotton roller is not best suited and for which the flannel bandage (strictly speaking) is too heavy, warm and expensive for constant use, can be provided for by bandages prepared from medium-weight shaker flannel. A bolt is usually 50 to 56 yards in length and 24 to 26 inches in width. My custom has been to buy a "Berlin domet" shaker flannel, which is 26 inches wide and costs 4½ cents a yard. The bolt of goods is cut into seven strips, each eight yards long, which are then rolled compactly. The length of each roll, 26 inches, is equal to the width of the goods, which will allow the selvedges to be trimmed off and leave sufficient to cut into 8 three-inch sections. Each roll is placed in the device shown in the illustration and cut with any long carving-knife, the edge of which is kept roughly sharpened with an emery stick. The strip of goods in each section is then put on a bandage roller and forms a compact bandage 8 yards long and 3 inches



Device used in cutting rolls of flannel for bandages. It is made out of half-inch lumber and consists of the following parts, the measurements being in inches: One bottom piece (b) 12¼ by 3¾; two side pieces (s) each 9 by 2½; two short side pieces (s') each 3 by 2½; one top piece (t) 9 by 4¾ and short top piece (t') 3 by 4¾

wide. This quality of material may be laundered very nicely and can be used many times. The expense is $2.52 for one bolt of shaker flannel 56 yards long. This supplies 7 eight-yard lengths; 8 bandages from each length makes 56 bandages, each costing 4½ cents. If it is necessary for the patients to purchase their own supplies, it gives excellent material much cheaper than it can be otherwise obtained.

The device for cutting the roll into sections is simple, of economic construction and of practical application.

409 Marlboro Street.

A NEW HEMORRHOIDAL CLAMP AND SPECULUM

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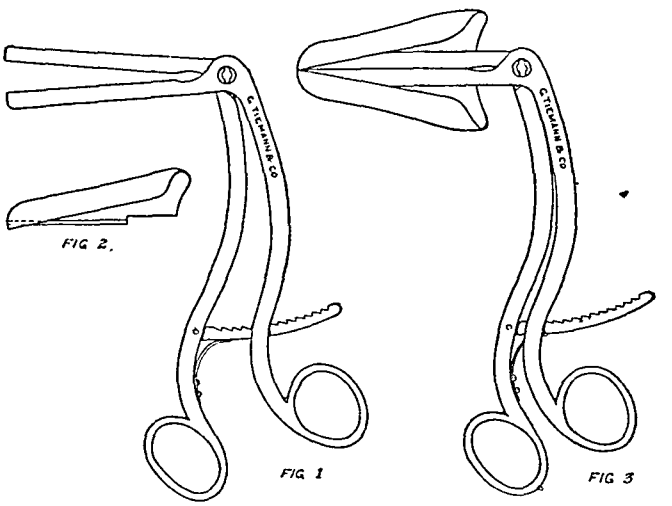
This instrument was devised for a clamp and suture operation described by me in the *Naval Medical Bulletin*, October, 1908. It has the following advantages, in all hemorrhoid operations, over the clamps now in general use:

1. The clamp and speculum are combined.
2. The natal curve of handles gives access to operative field.
3. The slender jaws produce less extensive area of crushed tissue.
4. The angle of jaw and curve of handles prevent dragging on the tumor by weight of instrument, as the instrument in position rests on the buttocks and sacrum.
5. The closed end of speculum prevents soiling of the operative field from possible contents of the upper rectum.
6. The speculum obviates the necessity for drawing the hemorrhoid down with forceps, as high tumors can be treated through speculum.
7. The speculum protects the rectal tissues while cautery is in use.
8. The instrument can be introduced, applied, and removed with one hand.

The instrument is fitted with two steel reversible and detachable blades, so that a serviceable speculum can be attached to the jaws of the clamp for either side of the rectum.

The clamp is introduced into the rectum closed, with the speculum directed to the opposite side from that



A new hemorrhoidal clamp and speculum.

on which the pile to be clamped is located. The jaws are slowly opened and the hemorrhoid allowed to slip between them to the extent desired, or the process may be aided by a pair of dressing forceps. The hemorrhoid is clamped by approximating the handles of the instrument, which are fitted with a ratchet catch. The hemorrhoid can then be treated through the speculum, and the jaws released by drawing down the ratchet guide.

In the clamp and suture operation the advantages of the instrument lie in the special curve of the handles which facilitates the suturing, and the slender jaws which permit manipulation with needle and holder behind them.

As the use of the cautery is not necessary in the suture operation, the speculum is removed, and the instrument is more easily turned to permit entrance of the needle on the upper and lower surface of the pedicle, respectively, during the progress of suturing.

The use of a long-bladed hemostat as a needle holder and of a short, curved needle will facilitate the suturing.

The instrument with speculum attached weighs seven ounces. The center of gravity passes through the joint, so that the instrument in position hangs in the rectum and requires no other support.

Each blade of the speculum is fitted with a steel pin at the base, which slides into a canal at the bottom of a

groove in the jaw. This pin secures the blade in position.

The crushing surface of the jaws measures 2⅝ inches in length and 3/16 of an inch in width. The instrument measures 6⅞ inches from joint to handle tip.

U. S. S. Glacier.

TWO CASES SUGGESTIVE OF SPECIFIC GENERAL AND FOCAL REACTIONS AFTER VON PIRQUET'S CUTANEOUS TEST

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The discovery by von Pirquet of the cutaneous reaction, by Calmette and Wolff-Eisner of the ophthalmic, and by Moro of the percutaneous, have been hailed with joy and satisfaction. In reporting on them, men of wide experience and learning have been careful to observe that the usefulness of the tests is not fully established, but almost every one has expressed great satisfaction that they give no alarming general symptoms and that they are perfectly harmless.

Together with others, I have been enthusiastic over them and applied them in several cases, before resorting to the old method of injecting T. O., and I had the opportunity to observe *two specific reactions after the application* of the von Pirquet test. In both cases there was also the specific reaction in the foci of the disease. I, therefore, call them "focal reactions." Following is the history of the two cases:

Case 1.—November, 1908. *Patient.*—F., Irish-American; aged 27; bookkeeper; brother died of tuberculosis; sister was suffering from it; mother died young, cause unknown; father living, aged 64; healthy; two brothers living and healthy. The patient had a few night sweats during August; felt weak, but noticed no other symptom. He feared tuberculosis and was examined by several doctors; results were negative. Sputum was examined several times, by myself among others, with negative results. There was loss of one or two pounds of flesh during long intermissions, but rapid return to original weight.

Present State.—Pulse, 84. Temperature, 98.2 to 98.6, taken for three days. Chest expansion, 3¼ inches. Respiration, 19. Height, 5 feet 5¼ inches. Weight, 152 pounds. Body well nourished; appetite and digestion good; no cough and no expectoration except on rare occasions in the morning. Physical examination revealed nothing of significance.

Von Pirquet Test.—November 12, about noon, the von Pirquet test was applied in the usual manner, care being taken that there should be no extravasation of blood by the scarification. In the evening the patient complained of an uncomfortable feeling in the chest; coughed; temperature 100.4; pulse, 96. There was no evidence of a cutaneous reaction. I examined his chest, but noted no other signs outside of harsh breathing in the right apex. The fever left the patient about nineteen hours after the application of the test. He had a good night's rest, but felt somewhat tired in the morning. After having a good breakfast, however, he felt as well as ever. Cutaneous reaction was looked for, but not found. Before resorting to the T. O. diagnosis, another specimen of patient's sputum was examined and revealed the presence of tubercle bacilli to the number of one to three in every third or fourth field. About thirty fields were examined. The sputum was centrifuged and washed. The fever, the harsh breathing in right apex, the oppressive feeling in chest and other phenomena were therefore due to the action of tuberculin absorbed through the skin.

Case 2.—March 29, 1909. *Patient.*—Mrs. M. B., American; aged 35; married; was engaged in light housekeeping; husband healthy; father died at 48; mother at 42; both of some lung disease; deaths about two years apart. One brother died recently of laryngeal tuberculosis. No other members of the family living. The patient's voice became husky some three or four months previous to examination. There was also some pain on deglutition, mostly a burning and lump sensation in the throat. The patient had night sweats for one week; lost some flesh, but regained it quickly; became hoarse for a day or two every ten or fourteen days; did not think she had had fever at any time.

Present State.—Pulse, 108. Temperature for three days, 98, a. m., 98.6, p. m. Respiration, 20. Chest expansion, 2¼ inches. Height, 5 feet 3½ inches. Weight 128½ pounds. The patient complained of no pain; coughed sometimes in the morning; expectoration was scanty; appetite and digestion fair; microscopic examination of sputum revealed numerous streptococci and staphylococci, but no tubercle bacilli. Sputum was centrifuged and washed as usual. Physical examination of chest revealed nothing; laryngoscope showed just a slight pallor of tissues.

Von Pirquet Test.—This was administered in the usual manner. Eight hours after the test I found the patient in bed. Her face was very much flushed with a cyanotic hue; she felt sick and vomited; her voice was hoarse; she complained of oppressive feeling in the chest, especially on the right side; had pain in her throat, even on drinking water; could not take food; coughed and expectorated thick "chunks." Pulse 140. Temperature, 102.6. Respiration, 28. Physical examination revealed moist râles in right apex. Laryngoscopic examination, made early next morning, about eighteen hours after inoculation, revealed hyperemic patches over epiglottis and the right rima glottidis; magnifying mirror was used and the hyperemic spots gave the appearance of papilla or small dots closely resembling the strawberry tongue in scarlet fever, but they had a bluish tint. Temperature went up to 104 within twenty-four hours, but declined rapidly. Within six hours (thirty hours after inoculation) it came down to 99.8. The decline afterward was more slow and in twelve hours it came down to normal (forty-two hours after the inoculation), and in fifty-six hours after the inoculation the patient felt well. This was certainly a specific reaction due to the tuberculin, the severity probably being increased by the mixed infection.

After observing these two reactions, I concluded that they were due to the specific reaction of the tuberculin applied according to von Pirquet's method.

When we analyze clearly what we administer in the von Pirquet test we need not be surprised at this reaction. One drop of a 25 per cent. solution of T. O. is usually employed. This represents 15 mg. of tuberculin, if all of it should be absorbed by the skin. One-half of the tuberculin, let us suppose, is left on the applicator, which is used to rub in the tuberculin; let us further allow that one-half of the remainder goes also to waste; still there is left 3.75 mg. to be absorbed by the skin, if the skin absorbs it at all. If the skin does absorb it, an initial dose of 3.75 mg. is certainly too high. But observers have so far seen no ill effects from the cutaneous reaction. I have also employed it in several cases with no bad results. The question that I wish to raise is: What is really the effect of the tuberculin on the skin? Has the reddened surface around the inoculated spot anything in common with the specific tuberculin reaction, or does it act only as an ordinary irritant on the skin that may possess more or less sensibility to its irritation? If so, we should get the cutaneous phenomena in positively non-tuberculous individuals, whose skin is sensitive to tuberculin.

Bandelier and Roepke seem to hold that view. In their "Lehrbuch der spezifischen Diagnostik und Therapie der Tuberkulose" they make the following statement while discussing the von Pirquet test, though with another object than mine:

Von nicht tuberkulösen Kindern 16 per cent. typische Hautreaktion zeigten; nicht tuberkulöse Erwachsene und grossere Kinder reagiren sehr leicht bezw. ohne Ausnahme.

I do not deny that there is some significance in the cutaneous reaction, but its significance when the reaction is only cutaneous is possibly non-specific, and when the reaction through some peculiarity of the skin of the tested individual becomes specific it may be violent and, therefore, dangerous, as the dose is too high and can not be graded. Whatever was said in reference to the cutaneous reaction, relates also, though not to the same extent, to the ophthalmic. In the ophthalmic test we use two minims ordinarily of 1 per cent. solution of *pure* tuberculin, or 1.2 of *pure* tuberculin. If we should suppose that half of it was wasted, and this is hardly the case, as we use no applicator with it, but drop it directly into the conjunctival sac, hold it for a few seconds until it spreads all over—then we instil into the conjunctiva, a membrane of great absorbent powers, 0.6 mg., a dose which is too high for the initial dose. If it gives no general or focal specific reaction the fault is not ours, but in all probability that the tuberculin acts in the conjunctiva only as an irritant, and the more sensitive and prone to irritation the conjunctiva is the more or less pronounced will be the conjunctivitis, irrespective of the circumstances, whether the subject tested is tuberculous or not.

Whatever was said about the cutaneous and ophthalmic reactions relates also to the Moro test.

84 Academy street.

A CASE OF BILATERAL RENAL CALCULI

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CHICAGO

The following case illustrates the necessity of taking skiagraphs of both kidneys in every case of suspected renal calculi. It is a generally accepted fact that the simultaneous presence of calculi in both kidneys is not so rare as was formerly thought. It has been estimated to occur in from 15 to 20 per cent. of cases of nephrolithiasis. It is of the utmost importance to ascertain the bilateral presence of calculi, owing to the frequency with which anuria may occur, with obstruction of the ureter of one side and reflex inhibition of the functional activity of the opposite kidney or cessation of the secretory functions of the latter as the result of blocking of its ureter by a calculus. It is beyond the province of this brief clinical report to discuss the advisability of operating on one or both kidneys at the same sitting. At present I am inclined to believe that the method pursued in this case of operating at an interval of four to six weeks is the safer one. The history of my case is as follows:

History.—E. H., aged 20, was referred by Dr. Mortimer Frank of Chicago. In 1903 (five years prior to my first examination) the patient began to have pains alternately over the right and left lumbar regions. Up to one year before my examination the pain had been chiefly in the right side, but during the year preceding my examination the pain had been confined to the left side. The pain was of an aching character, lasting several hours, and localized over the left kidney. The urine had been cloudy for past four years. Neither blood nor calculi were ever passed until July, 1908, when he had severe pain over the left kidney for three days, accompanied by chills, fever and the passage of a few small calculi and some blood, the last-named symptom persisting for one day. Since this attack pain occurred only on the left side. Skiagraphs, taken separately of the right and left kidneys, revealed the presence of undoubted stone shadows in both. Functional tests with indigo-carmin and phloridzin showed both kidneys of about equal functional capacity.

First Operation.—The calculi were removed from the left kidney on Oct. 30, 1908. The kidney was converted into a number of hydronephrotic cavities, with only a narrow rim of parenchyma. After splitting the kidney in the median line of its convexity, thirteen calculi were found. One of these almost completely blocked the pelvic orifice of the ureter. The remainder of the calculi were found in the greatly dilated calices of the hydronephrotic kidney. On account of the presence of a fair amount of good parenchyma at the upper and lower poles, it was deemed best not to remove the kidney.

The patient recovered very rapidly from this operation and left the hospital on Nov. 26, 1908.

Second Operation.—He re-entered the Michael Reese Hospital on Feb. 3, 1909, to have the calculi removed from the right kidney. Nephrotomy on this side was performed in the usual manner, and six calculi, varying in size from a pea to a lima bean, were removed. One of these calculi incompletely blocked the pelvic orifice of the ureter, as in the other kidney. This right kidney showed even more advanced changes than the left. It was greatly sacculated, so that the calculi could be readily palpated through its thin walls. The parenchyma was apparently destroyed in the upper half, the only functionating portion being in the lower half. One stone, the size of a hazel nut, was in the lower pole near the cortex; a second, the size of a hickory-nut, lay in the pelvis, and a third large stone was in the upper pole. The other three calculi lay in the sacs near the cortex.

The patient also made an uneventful recovery from this second nephrotomy and returned to work four weeks later. The wound was healed six weeks after the operation. He has gained greatly in weight and color.

103 State street.

TRYPSIN IN POSTOPERATIVE TREATMENT OF CARCINOMA OF BREAST

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ROXBURY, MASS.

History.—On Sept. 17, 1907, I was called to see Mrs. S., aged 62, who had a growth in the left breast and considerable pain. She said it had been growing for more than a year, but she had never consulted a physician about it. On examination I found the breast very large with skin adherent for some distance around the nipple area, and several thickened carcinomatous patches in the skin. The glands in the neck and axilla were much enlarged. I advised immediate operation, but the patient was opposed to this. I saw her again on Sept. 28, 1907. The pain had increased a great deal and the patient had considerable vomiting, complained of chills and had an unquenchable thirst. She had the typical cachectic color. The skin showed more thickening and discoloration. I removed the breast by the usual radical operation on October 3, removing all the glands in the axilla and a large area of skin. I obtained primary union in the usual time, but the patient had failed a great deal since the operation. A general toxemia, probably due to the cancer, had been present since before the operation. The patient had a temperature of 100 to 101 and always a rapid pulse, with pers[illegible] st. She failed rapidly in weight and [illegible] of urine, stools and stomach contents, from time to time, showed nothing abnormal.

Use of Trypsin.—On Feb. 3, 1908, I began the use of trypsin and amylopsin. The patient stood the treatment very well; had no local reaction or abcesses. After a few months, vomiting ceased except at intervals, when an injection of amylopsin would seem to control it for another period. The patient has now had no treatment since Nov. 11, 1908; is down stairs every day and assists occasionally in light housework. Her appetite is much improved. She is in better condition since the operation and the treatment has certainly helped her.

It is certainly well worth a trial, and I am now using it in two more cases, but it is too early as yet to make any deduction in these cases.

MUCOUS COLITIS: APPENDICOSTOMY

REPORT OF CASE

JOHN M. LITTLE, JR, M.D.
ST. ANTHONY, NORTH NEWFOUNDLAND

I have read with interest the preliminary report[1] by Dr. Reed of the case of mucous colitis treated by bacterial injections through the appendix. Mr. Dawson[2] gives a very full account of appendicostomy and the surgical aspect of colitis, and mentions also the treatment of mucous colitis based on the well-known work of Metchnikoff. It is to be hoped that a larger experience may lead to a better understanding and treatment of this condition. Meanwhile appendicostomy, judged by the few cases reported, offers promise of success. There are too few cases as yet on record, or followed for a long enough time, to point to definite conclusions.

For this reason the following is reported. The improvement, which, following the operation, has been marked and steady, is independent of bacterial therapeusis, unless the mechanical factors have brought about conditions under which the normal intestinal fauna and flora have reinstated themselves.

Patient.—G. B. (Hospital Record No. 303), aged 40, a well-to-do skipper, fisherman, with unimportant family history, had had the best of everything in his living, had always been well and strong, and considered himself exceptionally hearty till his present illness. His average weight was 220 pounds.

Present Illness.—Ten months before coming to the hospital he began to have vague pains in his abdomen and back and to feel weak and unable to work. About the same time he began to have constipation for four or five days at a time, alternating with diarrhea, with loss of appetite and indigestion. He was treated by his family physician, but received no benefit. In June, 1908, he went as skipper of his own vessel, but felt miserable all the time. By the last of June he felt he must "give up." He saw Dr. Hare at Harrington Hospital, who sent him home, put him on a diet and rectal injections, and told him he must go to a hospital. He followed instructions, but without benefit. He had been passing masses of peculiar appearance, something like "squids." He had lost steadily during the six months before coming to the hospital, the falling-off in weight amounting to forty pounds. He had never been nervous and was not then, but was willing to do anything to get well, as he wanted to resume work. He entered St. Anthony's Hospital Oct. 27, 1908.

Examination.—The patient was a well-developed and well-nourished, very strong, hearty-looking man. One would not imagine that anything could be wrong with him. Temperature, pulse and respiration were normal. The chest was normal; the abdomen, aside from a little tenderness on the right side on deep pressure, was normal. The rectum was empty and collapsed. The urine was acid; specific gravity, 1.018; no albumin and sugar.

Course of Disease.—The patient was put to bed and given a light diet and cathartic. On October 29 he passed voluminous stools with much shiny mucus in lumps and shreds, and on October 31 a very tenacious mucous cast a foot long. The patient was weak. An alum enema was given daily as high as possible. On November 9 the patient was sent home with instructions as to treatment and directions to return in two weeks for operation if no benefit was felt. His weight on admission was 184 pounds; on return home, 179 pounds. On November 24 he was readmitted weighing 174 pounds. He felt about the same: complained of swelling of the bowels and lameness along the course of the descending colon, where he had slight tenderness on deep pressure. His bowels had been more regular, but he had passed "squid-like" stools. His appetite was poor and he had a bad taste in his mouth.

Operation.—On November 26, under ether, a gridiron incision was made at McBurney's point, the abdominal cavity thoroughly explored and everything found normal. The appendix, which was normal, was pulled up into the lower angle of the wound. The mesoappendix was very fat and was therefore tied off down to a point just within the tendons of the external oblique muscle (1 inch). It was stitched in place by two silk sutures through the muscular layer of the appendix and skin. The wound was then sutured in layers, care being taken to have the cecum close against the abdominal wall, where it came easily, and no tension or constriction of the appendix. The tip of the appendix, in which the circulation seemed good, was wrapped in gutta-percha tissue. Dry dressing was applied and the patient put to bed in good condition. He made a good recovery from the ether with very little nausea. On November 30 the end of the appendix, which was looking dark, was cut off level with the skin and a soft rubber catheter inserted. The patient felt no sensation as the appendix was cut and dilated. A small amount of gas escaped through the catheter.

Postoperative Treatment and History.—On December 1 soapy water was passed into the cecum through the catheter. After a quart had been run in slowly there was discomfort and the patient vomited twice; the flow was then stopped. In five minutes the patient had a voluminous movement into the bedpan of hard fecal masses, mucus, soft feces and soapy water, experiencing immediate relief. The irrigation was continued, the patient being comfortable and expelling the feces and fluid at short intervals until the water came away almost as clean as it went in. About eight quarts were used. On December 4 the patient was up and dressed. The irrigations had been continued twice daily without trouble or discomfort. On December 10 the patient was up and about, feeling better. He performed the irrigation daily himself, sitting on the closet, and using five to six quarts of water, followed every third day by ten ounces of 0.5 per cent. solution of silver nitrate. The end of the stump of the appendix sloughed off, but there was no trouble in passing the catheter. From now on, with the exception of a small stitch abscess which soon cleared up, the convalescence was uninterrupted. By January 8 the patient was leading a fairly active life, began to feel better and had a good appetite. His weight had steadily increased from 174 to 186 pounds. There was no leakage of feces or gas from the opening; the catheter was passed with ease. There was still considerable slimy mucus in the stools, but not in lumps and masses. The patient decided to go home, to return in the spring for examination and closure of the fistula if he was well enough. He would prefer to have a fistula permanently, since it was no trouble to him, rather than be as he was before. He thought that he would be able to go "sealing" in March if he kept on improving as he had in the last two weeks.

Last Report (made on correcting proof, June 4, 1909.)—I have to-day examined the patient. He seems well in every way and weighs 217 pounds. He has worn a catheter in the appendix up to date, as he did not wish the hole to close. He is leading an active life. He notices nothing abnormal about his stool. He has been advised to give up the catheter and allow the appendicostomy opening to contract. He will report at intervals and return for treatment on any recurrence of his former trouble.

1. Reed, Charles A. L.: Direct Bacterial Treatment of the Colon through the Vermiform Appendix, THE JOURNAL A. M. A., Feb. 20, 1909, lii, 636.
2. Brit. Med. Jour., Jan. 9, 1909.

Pin (Supposed to Have Been Swallowed) Found in Bladder.—Dr. C. S. Austin, of Carrollton, Missouri, reports the case of a 14-year-old boy, previously healthy, who suddenly developed symptoms of cystitis. The patient was treated by several physicans for almost a year without benefit, and had become weak and anemic. Dr. Austin, on examination, discovered a foreign body in the bladder, and at length was able to remove a large pin, the point and head exposed and rusty, and the shaft covered with a rough, uneven calcareous deposit to the thickness of a lead pencil. The patient then recalled that he had swallowed a pin about a year previous to the first appearance of the symptoms, or about two years previous to the operation. With the extraction of the pin, all unpleasant symptoms ceased and the patient soon regained his health.

Therapeutics

TINEA CRURIS: RINGWORM OF THE LEG

This is a disease that has lately attacked in epidemic form the students of universities and preparatory schools. It occurs on the inner side of the thighs near the body, often spreading to the scrotum, to the abdomen, to the perineum, and to the buttocks. The hairs do not fall out, thus differing from the ringworm that attacks the scalp and other parts of the body. There is slight itching and burning, but the disease may go on for weeks and even months without very much disturbance to the patient. It does not tend to recovery, and will persist until properly treated. In fact, the treatments outlined by most of the books on skin diseases are tediously ineffectual, and the statement is often made that a cure of the disease requires weeks and even months of treatment. Consequently, ordinary treatments of this disease are so unsatisfactory as to be considered of no value.

The following treatment is one that is always effectual and always curative in a short space of time. In the first place, it must be impressed on the patient that reinfection readily and almost persistently occurs unless the greatest cleanliness of the underclothing and even trousers is inaugurated. Also, it is evidently transmitted from patient to patient from the closet seats. Dirty jock straps and suspensory bandages used in athletics are persistent transmitters of the disease. Therefore, clean clothing must be worn after all the washable clothing has been boiled and the trousers have been properly cleaned and properly ironed. Closets must be rendered aseptic by frequent corrosive sublimate baths.

The patient should then be instructed to come to the office, bringing clean drawers and a clean shirt, so that after the antiseptic treatment he can put on clothing that is not infected. The different steps in the antiseptic process are:

1. The parts are all thoroughly cleansed with a soft brush or cotton, and liquid soap, and the skin for four or five inches distance from the infected areas should also be cleansed with this soap. The scrubbing should not be very severe, as the skin must not be broken and the epidermis not too severely removed.

2. The infected area should then be wiped over thoroughly with a 2.5 per cent. phenol solution. This will slightly anesthetize the parts to which the stronger antiseptic is to be applied.

3. A cotton swab is now wet with the official formaldehyd solution. This is then lightly swabbed over all the infected parts, which are kept wet for three minutes, provided the patient can stand the burning pain for this length of time. If there is an area that is especially red and inflamed and sensitive, this part may be swabbed with the next solution mentioned before the three minutes have elapsed.

4. The whole area to which the formaldehyd solution has been applied is now thoroughly washed with the 2.5 per cent. phenol solution. This quickly relieves the pain caused by the formalin application.

5. After the burning pain has ceased, the skin is gently dried and talcum powder is dusted over it. The patient then dresses in his clean clothing and takes care that he does not come in contact with any infected garments, beds or closets.

6. After twenty-four hours the patient should report for observation. If severe irritation has been caused by the formaldehyd solution, a 2 per cent. phenol ointment should be applied. If there is not severe irritation or inflammation, the simple talcum dusting powder is to be freely used.

7. At the end of a week the patient is again examined, and if there are any recurrent small areas, which may happen at the margins of the affected region, these are again touched with the formaldehyd solution.

By the above treatment a cure may be expected immediately and certainly within two weeks. The success of the antiseptic treatment is certainly far in advance of the ordinary treatments of this inveterate disease.

The preparations advised are as follows:

℞.	c.c.		
Phenolis liquefacti	2	50 or	m. xlv
Aquæ, ad	100		ad, fl.ʒiv

M. et Sig.: 2.5 per cent. carbolic acid solution.

℞.	c.c.		
Liquoris formaldehydi	100	or	fl.ʒiii

Sig.: Official formaldehyd solution.

℞.	gm. or c.c.		
Phenolis liquefacti		50 or	m. x
Petrolati	25		ʒi

M. et Sig.: Apply externally as directed.

In an article on this subject in the *British Medical Journal*, May 8, 1909, Dr. J. O. Symes describes his treatment of this disease. He first removes the superficial epidermis with antiseptics, and uses "a solution of 40 grains of iodin with 20 grains of potassium iodid in an ounce of methylated spirit. Two applications are generally sufficient." The parts are then treated, morning and evening, with the following ointment:

℞.	gm.		
Sulphuris precipitati	2		
Hydrargyri ammoniati	2	or	āā, ʒss
Adipis lanæ hydrosi	30		ʒi

M. et Sig.: Use externally.

Sometimes the affected parts were painted every other day with a camel-hair brush soaked in oil of turpentine, and the following ointment rubbed in every night:

℞.	gm.		
Sulphuris precipitati	2		
Hydargyri ammoniati	2		āā, ʒss
Acidi salicyli		60 or	gr. x
Adipis lanæ hydrosi	15		
Petrolati	15		āā, ʒss

M. et Sig.: Use externally.

The smarting caused by the applications of turpentine are relieved with petrolatum. The average duration of the treatment for a cure is three weeks.

Symes says that, while the tinea cruris resembles the tinea circinata, they are probably two distinct parasites, for, as distinct from the latter, "the tinea cruris germs do not attack the hairs, and the parasite of the tinea cruris shows a larger spore and a freer growth of mycelium than tinea megalosporon."

TINEA TONSURANS

Dr. R. L. Sutton, Kansas City, Mo. (*American Journal of the Medical Sciences*, March, 1909), describes the treatment of this obstinate and stubborn disease, especially of the scalp and bearded portions of the body. While the *x*-ray is now used frequently to cause the falling out of the hairs, which is so essential to the proper treatment and cure of the disease, Sutton does not advise it, as it is difficult to gauge the intensity of the action of the *x*-ray, and it many times requires more exposure than is advisable. Such treatment should, therefore, not be undertaken without a good deal of experience with *x*-ray activities. The action of the *x*-ray is only of advantage in removing the hairs; it does not seem to kill the fungi, although it may stimulate a

healthy inflammatory process that aids in ridding the skin of the organisms. Whether the hair is removed by x-ray action or otherwise, Sutton advises the following treatment:

The diseased surface is mopped with tincture of iodin. This is followed in a few minutes by the application of a 2 per cent. aqueous solution of corrosive sublimate (mercuric chlorid). Sutton says: "The powerful effect secured is due not to the individual action of either alone, but to a third, mercuric iodid, an extremely active and powerful, but relatively unstable salt which is formed at the points of contact." He has never seen any unpleasant symptoms occur from this treatment, but he is careful to treat only a small portion of the diseased surface at one time.

Whatever other medicaments are used, he finds that "goose grease is the best skin penetrant."

THE USE OF CHRYSAROBIN IN PSORIASIS

In the local treatment of psoriasis it should be remembered that the advantages to be gained are brought about by a stimulation of the diseased area. Reddening of the surrounding skin is no help; it is the affected areas themselves that must become hyperemic. Sometimes chrysarobin acts better in combination with other drugs, and the following combination is attributed to Drew by Walker (*Scottish Medical and Surgical Journal*, April, 1908):

℞.	gm.	
Chrysarobini	20	ãã, ʒv
Olei rusci	20	
Acidi salicyli	10	or ʒiiss
Saponis mollis	25	
Petrolati	25	ãã, ʒvi

M. et Sig.: Use externally on affected spots.

Walker says that this ointment will cause the healthy erythema desired in the psoriatic spots in about ten days. It is advisable for the patient to wear his ointment-soiled underclothing for another day or two; then after thoroughly bathing the disease should be found eradicated. If the disease returns, the treatment may be again instituted for a few days.

FAVUS

Favus is now often treated by causing the hair to fall out by the use of x-ray, and then the application of an antiseptic, either sulphur, ammoniated mercury, resorcin, or copper ointments.

Ignored Mumps.—It is generally supposed that no one could have mumps without knowing it, but Haury, a French army surgeon, writes to *Hygiène Générale et Appliquée*, May, to tell of an epidemic of mumps in a certain garrison in which only 4 of the men were actually conscious of having the mumps, but in 81 others more or less tumefaction of the parotid gland was evident when it was sought for, although there were no other signs of the disease. These men with ignored mumps were discovered scattered through the troop of a thousand zouaves, and were amazed at being ordered to the hospital. Examination of 380 men in a neighboring troop also revealed 24 cases of ignored mumps and 3 very mild cases with only one case in which a soldier was aware of being sick and had spontaneously applied for treatment. These abortive cases of mumps and similar diseases explain the interepidemic lulls and the persistence of infection, and they confirm the necessity for seeking out and isolating the only slightly affected infection carriers as the most effective prophylactic measure. In the experiences related above, the long duration of the glandular involvement was a surprise; in 58 of the men it lasted from 8 to 10 days; in 10 from 12 to 20; in 7 from 20 to 30, and in 6 from 30 to 40 days. The decided mumps lasted two months in one of the 4 acknowledged cases, but there were no general symptoms in any case.

New and Nonofficial Remedies

Since the publication of the book "New and Nonofficial Remedies, 1909," the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association. Their acceptance has been based largely on evidence supplied by the manufacturer or his agent and in part on investigation made by or under the direction of the Council. Criticisms and corrections to aid in the revision of the matter before publication in the book are asked for.

The Council desires physicians to understand that the acceptance of an article does not necessarily mean a recommendation, but that so far as known it complies with the rules adopted by the Council.

W. A. PUCKNER, Secretary.

(*Continued from page 1929*)

ACETYLSALICYLIC ACID—Acidum Acetylsalicylicum.—*Acidum Acetylosalicylicum* (Pharm. Helvetica, edit. 4; Pharm. Danica, 1907; Pharm. Svecica, edit. 9)—Acidum Acetylsalicylicum (Pharm. Française, 1908)—Acetylsalicylic acid, $C_6H_4.O(CH_3CO).COOH,1:2 = C_9H_8O_4$, is the acetyl derivative of salicylic acid.

Acetylsalicylic acid is prepared by the prolonged heating of 50 parts of salicylic acid and 75 parts of acetic anhydride at about 150° C. (302° F.) under a reflux condenser, and subsequent purification, by recrystallization from chloroform (U. S. patent No. 644,077).

Acetylsalicylic acid occurs in the form of small, colorless crystalline needles, with a weak acidulous taste and, at most, a slight odor of acetic acid. It is readily soluble in alcohol, ether, chloroform, hot benzol and caustic alkalies (Pharm. Helvetica). It melts at 135° C. (275° F.) and is soluble in 125 parts of cold water (Pharm. Française). It is soluble in 100 parts of water at 37° C. (98.6° F.) (Farbenfabriken).

0.5 Gm. acetylsalicylic acid, dissolved in 10 Cc. sodium hydroxide solution, heated to boiling for 2 minutes, cooled and acidified with sulphuric acid, will yield a white crystalline precipitate, which when washed and dried melts at 156°-157° C. (312.8°-314.6° F.) and when in solution produces a violet color on the addition o[illegible]tion (salicylic acid). The filtrate from the [illegible] acid has the odor of acetic acid and when [illegible] c acid and alcohol yields the characteristic odor of the ethyl ester of acetic acid. 0.1 Gm. of acetylsalicylic dissolved in 5 Cc. alcohol, and 20 Cc. water added, should not produce a violet coloration on the addition of a drop of ferric chloride solution. If about 1 Gm. acetylsalicylic acid, carefully weighed, be boiled for 3 minutes with 15 Cc. normal alkali, then cooled and a few drops of phenolphthalein added, 38.6-38.9 Cc. tenth normal hydrochloric acid, for each gram of material used, should be required to produce a colorless solution. Acetylsalicylic acid should leave no weighable residue after ignition (Pharm. Helvetica).

Action and Uses.—It acts like salicylic acid, over which it possesses the advantage of producing less of the undesired local and systemic side effects, on account of the slow liberation of the salicylic acid. It passes the stomach practically unchanged, the complete decomposition occurring in the intestine.

Dosage.—0.3-0.1 Gm. (5-15 Grains) in capsules or wafers or dissolved in sweetened water or dry on the tongue, followed by a swallow of water.

Proprietary Preparation:

ASPIRIN.—A name applied to acetylsalicylic acid.

Manufactured by Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany (Farbenfabriken of Elberfeld Co., New York). U. S. patent No. 644,077. U. S. trademark No. 32,805.

BILE SALTS-Fairchild.—A preparation consisting essentially of sodium glycocholate and sodium taurocholate, in the proportion existing in ox bile, obtained from fresh ox-gall.

Action and Uses.—See Bile Salts, N. N. R., 1909, p. 31.

Dosage.—0.13 to 0.4 Gm. (2 to 6 grains); 4 to 5 Gm. (60 to 75 grains), per day.

Manufactured by Fairchild Bros. & Foster, New York.

ARSANILIC ACID AND ITS DERIVATIVES

Arsanilic acid is derived from arsenic acid, $As O.(OH)_3 = H_3 As O_4$, by replacing one hydroxyl by aniline (phenylamine); related compounds are made by substituting derivatives of aniline.

SODIUM ARSANILATE—Sodii Arsanilas.—Sodium Aniline Arsonate. Sodium Aminophenyl Arsonate. Sodium aniline arsonate, $C_6H_4(NH_2)\ (AsO.OH.ONa) = C_6H_7O_3NAsNa$, is the sodium salt of arsanilic acid, $C_6H_4(NH_2)\ (AsO.(OH)_2),1:4$.

It is prepared by condensing aniline and arsenic acid, eliminating water and isolating the arsanilic acids. The sodium salt is prepared by the usual methods.

Sodium arsanilate occurs as white, odorless crystals soluble in 5 or 6 parts of water and more soluble in warm water. It has a faint salty taste. On standing, the aqueous solution assumes a yellowish tint.

Sodium arsanilate crystallizes with somewhat varying amounts of water of crystallization. The arsenic content varies in different preparations from 23 to 26 per cent.

An acid solution of sodium arsanilate is not affected by hydrogen sulphide in the cold; when the solution is warmed the arsenic may be completely precipitated by hydrogen sulphide. If a solution of sodium arsanilate is treated with hydrochloric acid and potassium iodide, iodine is set free. The resulting liquid, whether freed of iodine or not, gives, even in the cold, a precipitate of arsenic sulphide when treated with hydrogen sulphide.

The arsenic and water content of sodium arsanilate may be determined by the methods given in THE JOURNAL A. M. A., Sept. 21, 1907, p. 1041.

An aqueous solution of the salt gives with mineral acids a white precipitate of arsanilic acid, soluble in excess of acid. An aqueous solution of the salt gives with silver nitrate solution a white precipitate of silver arsanilate. An aqueous solution of the salt, after the addition of hydrochloric acid and sodium nitrate gives a deep red coloration with a solution of b naphthol in caustic soda.

Actions and Uses.—The arsenic of the arsanilic acid is liberated very slowly in the system, thus producing the ordinary therapeutic effects of arsenic, with the advantage of a more continuous and less toxic action and less irritation. Toxic effects from excessive doses have been frequently noted, although the toxicity is stated to be about 1/40 of that of arsenic trioxide. The poisonous effects appear to be due largely to the arsenic component, the aniline taking no part in them. It is claimed that the use of sodium arsanilate is not followed by irritation, abscess formation, etc., which sometimes follow the use of other preparations of arsenic. The use of sodium arsanilate in large doses has occasionally been followed by degeneration of the optic nerve leading to blindness.

It is said to have about 1/40 the toxicity of arsenic trioxide. Sodium arsanilate has been recommended for the conditions which are favorably influenced by arsenic, such as anemia, nervous affections and diseases of the skin. It is said to have been very successful as a remedy for trypanosomiasis both in animals and of man, and is also said to be useful in other protozoal diseases, as syphilis, malaria, kala-azar, etc.

Dosage.—0.02 to 0.2 Gm. (⅓ to 3 grains) hypodermically every other day, gradually increasing, if necessary, until the single dose reaches 0.65 Gm. (10 grains) and until a total of 6.5 Gm. (100 grains) have been given. The drug should not be given by the mouth, as it is decomposed by the acid contents of the stomach, and toxic symptoms may result.

Proprietary preparations:

Sodium arsanilate was first introduced in the form of *Atoxyl.*

ATOXYL.—Atoxyl is sodium arsanilate containing about 26 per cent. of arsenic and corresponding closely to the formula $C_6H_4(NH_2)$. (As O.OH.ONa) + 3 H_2O. It is a white powder having the properties given above.

Manufactured by Vereinigte Chemische Werke Actiengesellschaft, Charlottenburg, Germany. (Victor Koechl & Co., New York). U. S. trademark No. 38,879.

Atoxyl Hypodermic Tablets, 1/3 grain, Koechl.—Each tablet contains 0.020 Gm. (⅓ grain) of atoxyl.

SOAMIN.—Soamin is a form of sodium arsanilate containing approximately 22 per cent of arsenic and corresponding to the formula $C_6H_4(NH_2)$. (As O.OH.ONa) + 5 H_2O. It is a white crystalline substance having the properties given above.

Tabloid Soamin, 5 grains.—Each tablet is said to contain 0.3 Gm. (5 grains) of soamin.

Tabloid Soamin, 1 grain.—Each tablet is said to contain 0.065 Gm. (1 grain) of soamin.

Manufactured by Burroughs, Wellcome & Co., London, Eng., and New York. British trademark No. 302,133; U. S. trademark applied for.

ARSACETIN.—Arsacetin is sodium acetyl arsanilate, $C_6H_4(NH.CH_3CO)$ (AsO.OH.ONa) a compound derived from sodium arsanilate by replacing a hydrogen atom of the amino group in sodium arsanilate, with an acetyl radicle.

Arsacetin is a white crystalline substance, odorless, tasteless, and soluble to the extent of 10 per cent. in cold and 30 per cent. in hot water. It is free from arsenious or arsenic acid and solutions are not affected by boiling. It may be heated for an hour at 130° C. in the autoclave without undergoing decomposition.

Action and Uses.—See Sodium Arsanilate. It is claimed to be less toxic than sodium arsanilate and possesses the advantage of keeping well and being sterilizable without decomposition.

Dosage.—For hypodermic injection 0.1 Gm. (1½ grains) to 0.5 Gm. (7½ grains). For internal administration 0.05 Gm. (¾ grain) 3 to 4 times daily. Where energetic treatment is required in syphilis or trypanosomiasis two injections a week of 0.6 Gm. (9 grains) each, given on successive days, should be continued until 20 injections have been given.

Manufactured by Farbwerke, vorm. Meister Lucius & Bruening, Hoechst on Main, Germany. (Victor Koechl & Co., New York City. U. S. trademark applied for.

MERCURIC OXYCYANIDE—Hydrargyri oxycyanidum.—Hydrargyrum oxycyanatum (Pharm. Helvetica, edit. 4).

Mercuric oxycyanide, $Hg(CN)_2.HgO$, is basic-mercuric cyanide.

22.2 Gm. mercuric oxide is triturated with 52 Cc. water and 12 Cc. of sodium hydroxide solution (U. S. P.) and then 27 Gm. of pulverized mercuric cyanide is added and the mixture triturated until it becomes colorless or nearly so. If the product is not entirely decolorized heating on a water bath for a short time will complete the reaction. The mixture is allowed to settle, the liquid portion decanted off and the solid residue recrystallized from hot water or is simply washed several times with cold water, collected and dried between filter papers. (Rupp and Goy, Arch. d. Pharm., 1908, p. 369.)

Mercuric oxycyanide occurs as a white, or nearly white, microcrystalline powder which colors moist litmus paper blue. It is soluble in 17 parts water.

Boiled with a mixture of sodium hydroxide, ferrous sulphate and ferric chloride solutions, cooled and then treated with hydrochloric acid, mercuric oxycyanide yields a blue precipitate. A 1 to 20 solution gives a white precipitate with ammonia water soluble in excess of the precipitant. Tannic acid solution gives a yellow precipitate. Stannous chloride produces a grey black precipitate. Hydrogen sulphide and ammonium sulphide produce a black precipitate. When potassium iodide is added to a solution of mercuric oxycyanide until it becomes yellow the addition of ammonia produces a red color which finally becomes a brown precipitate, which dissolves to a colorless solution in potassium iodide. An aqueous solution should not give a test for chloride nor should 0.2 Gm. leave a weighable residue when ignited. (Pharm. Helvetica, edit. 4.)

1 Gm. of mercuric oxycyanide digested with 1 Gm. sodium chloride in 20 Cc. water yields a solution which should require not less than 37 Cc. of tenth normal hydrochloric acid for neutralization, methyl orange or paranitrophenol indicator being used.

Action and Uses.—Mercuric oxycyanide is recommended as a substitute for mercuric chloride. Its antiseptic power is said to be greater and it is claimed to be less irritating than mercuric chloride, because it does not act on albumin to the same extent. It has the advantage over the chloride that it does not corrode steel instruments.

Dosage.—It may be given by hypodermic injections in the same doses as mercuric chloride or may be applied locally in solution, 1-5000 increased as borne.

MERCURIC BENZOATE—Hydrargyri Benzoas.—Hydrargyrum benzoicum (Pharm. Française, edit. 1908), Mercuric Benzoate, $(C_6H_5COO)_2Hg + H_2O$, is the mercuric salt of benzoic acid.

10 Gm. glacial acetic acid is diluted with 100 Cc. water and 10 Gm. yellow mercuric oxide added and the mixture agitated until solution is effected. 14 Gm. sodium benzoate is dissolved in 100 Cc. water and added to the mercury solution. The precipitate which forms is collected and washed with water till free from acid and dried at 100° C. (212° F.). (Pharm. Française, edit. 1908.)

Mercuric benzoate is a white crystalline powder, slightly soluble in water, yielding a weakly acid solution, but insoluble in alcohol or ether. At 20° C. (68° F.) a 10 per cent. solution of sodium benzoate dissolves 1 per cent. of its weight of mercuric benzoate. Heated with alcohol it is decomposed into a basic salt of a yellow color. (Pharm. Française, edit. 1908.)

A solution of 1 Gm. mercuric benzoate and 0.5 Gm. sodium chloride in 20 Cc. water yields a black precipitate with hydrogen sulphide and with ferric chloride solution it yields a fawn colored precipitate of ferric benzoate.

A solution produced by shaking 1 Gm. mercuric benzoate with 20 Cc. water should not produce more than a faint turbidity when added to silver nitrate solution, acidified with nitric acid (limit of chloride). 2 Cc. of a similar solution when mixed with ferrous sulphate solution and then concentrated sulphuric acid added so as to form a layer beneath, should produce no brown coloration at the zone of contact of the two solutions (absence of nitrates).

Action and Uses.—The same as mercuric chloride.

Dosage.—Mercuric benzoate has been recommended for hypodermic use and in gonorrhea. In urethral cases the solution may be from 1-2000 and 1-1000 with an equal quantity of sodium chloride. For hypodermic injection the following may be given: Mercury benzoate, 0.02 to 0.03 Gm.; sodium chloride, 0.01 Gm.;; cocaine hydrochloride, 0.15 Gm.; distilled water, 40 Cc.

URETHAN-Hoechst.—A name applied to Aethylis Carbamas, U. S. P.

Manufactured by Farbwerke, vorm. Meister Lucius & Bruening, Hoechst A.-M. (Victor Koechl & Co., New York.) Not patented or trademarked.

ARTICLES ACCEPTED FOR N. N. R. APPENDIX

Louisville Pharmacal Works, Louisville, Ky.

Elixir Duozyma.—Elixir Pepsin, Diastase and Hydrastis, L. P. W. A mixture said to contain in each 100 Cc.: pure scale pepsin (1:3000) 2.2 Gm. (33 grains); malt diastase 0.22 Gm. (3⅓ grains); golden seal 0.22 Gm. (3⅓ grains); glycerin, C. P., 10 Cc. (160 minims) and alcohol 15 per cent.

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[For other information see second page following reading matter]

SATURDAY, JUNE 26, 1909

[The large amount of space occupied by the index this week makes it necessary to omit some departments and to curtail the space given to others.]

THE INDEX

The index to the current volume appears in this issue. To those who are familiar with The Journal it needs no introduction, but for the new subscriber, or the old subscriber who has not familiarized himself with it, the following explanation may be in order:

The index is in three parts—the "General Index," the "Index to Subjects," and the "Index to Authors." The "General Index" is a complete index to all matter that has appeared in The Journal for the past six months. Except that it is larger, it differs in no essential way from the index of any other medical publication. The "Index to Subjects," on the other hand, is an index of articles which have appeared in the most important medical journals of the world—including, of course, The Journal's own articles. This "Index to Subjects" is practically an index medicus, not so exhaustive or complete as the *Index Medicus*, but of greater value to any one desiring to refer to the work that has been done during the past half year. In the "Index to Authors" appear the names of all authors whose articles are indexed in the "Index to Subjects."

Under the title, "The Guide to Current Medical Literature," the complete index of The Journal is reprinted in pamphlet form. Bound with it are the itemized lists of articles that have appeared in other medical journals as they were listed in The Journal each week. Its use obviates the necessity of referring to the bound volume of The Journal, and its compactness and scope make it a valuable and necessary addition to a physician's library.

PREPARE FOR THE FOURTH OF JULY

The time has come to sound again the annual warning of the approaching dangers of July Fourth, and once more to take up the task of counting the victims of our day of license and lawlessness. Year by year we see the daily press taking up the work more and more extensively, and becoming the most effective of all the allies in the fight against wanton manslaughter and mutilation. What the Fourth of July would become without this vigorous fight by the public press is hard to imagine, for even as it is the amount of carnage and conflagration has scarcely been held stationary for the last few years. Yet there is reasonable hope of better things, for here and there vigorous individuals or organizations have come to the front, insisted on the enforcement of reasonable municipal ordinances, and by so doing have demonstrated that Fourth of July accidents can be practically abolished without any great difficulty. It is only a question of time when the suppression of lawlessness and its consequent damage to person and property will become something more than a rare, astounding spasm of civic common sense.

To tell the truth, the tardy reluctance with which we are giving up the nerve-racking noises and the deadly sports which seem inseparably connected with our idea of Independence Day testifies less to national inhumanity than to the absolute poverty of national ideas on the subject of pleasure and recreation. Rather than hard-heartedly deprive American children of a day of pleasure, we have submitted smilingly to see them butchered to make a glorious holiday; for we have been incapable of devising any other than this crude and barbaric means of celebration. Is there another nation, ranking higher in the scale of civilization than an African tribe, which would not have devised many graceful and fitting ways of honoring the past and giving pleasure in the present, while satisfying the artistic senses through music, public pageants and other festivities? No doubt an increasing sensitiveness to the effect of the present blatant proclamation of our own rawness will join with humanitarian motives in changing and raising the character of our national holiday.

As things stand at present, however, we may look forward to having the care of some five thousand young victims of a pernicious tradition, and, according to past experience, we may save several hundreds merely by being aware of the necessity of anticipating tetanus infection. It is hardly necessary at the present time to urge thorough surgical cleansing and antitoxin prophylaxis of tetanus, for this lesson has been thoroughly learned. The number of cases of Fourth of July tetanus has been reduced from 415 in 1903 to 73 in 1907 and 76 in 1908, while at the same time the total number of accidents remained practically constant, and the deaths from causes other than tetanus actually increased from 60 in 1903 to 108 in 1908; it is evident, therefore, that tetanus has been more successfully prevented by physicians having charge of these injuries than was the case only a few years ago. Nearly all the cases of tetanus now observed are in patients who first consulted a physician too late to have proper prophylactic treatment. It may be well to call attention to the fact that the Society of American Bacteriologists has recommended that the minimum prophylactic dose of tetanus antitoxin should be 1,500 units; and a larger dose will, of course, do no harm.

Concerning the curative treatment of tetanus after it has once developed, the past year has added little that is new or hopeful. As ever, in the rapidly appearing cases with some severe symptoms, the patients usually die, while in a certain proportion of the slowly developing cases the patients recover, no matter what the treatment. Meltzer's method of inhibiting convulsions by intraspinal injections of magnesium sulphate solution has received some further trial, with several encouraging results, but it seems not to be entirely free from danger.[1] The effect of the magnesium sulphate seems to be merely to control the spasms and to give the body opportunity to excrete, destroy or neutralize the tetanus toxin. Antitoxin seems to have a distinct and real value in the treatment of tetanus, although this value is not great. The consensus of opinion seems to be that antitoxin has much greater curative effect when given intravenously, and into the spinal cord after as much cerebrospinal fluid as possible has been drawn off, than when used subcutaneously; also that it should be used unsparingly as to quantity in cases that progress unfavorably.

A PAN-AMERICAN PHARMACOPEIA?

The adoption by the Cuban government of the United States Pharmacopeia as its official standard, following so closely, as it does, the appearance of the Spanish edition of this work, "Farmacopea de los Estados Unidos de América," should be the initial step toward the admission of delegates from the Cuban government to the Pharmacopeial Convention of 1910. This suggests the possibility, if not the advisability, of similar representation, in the near future, of other Latin-American republics. While, under the present constitution of the United States Pharmacopeial Convention, representation is confined to organizations and institutions incorporated within the United States which have existed there continuously for five years immediately preceding the decennial convention, provision is made for amendments to the constitution which shall have the approval of the board of trustees of that corporation. We have no doubt that, in planning the translation of the Pharmacopeia into the Spanish language and providing for its circulation among the Spanish-speaking peoples of this hemisphere, the board of trustees had this contingency in mind, and that in due time the necessary steps will be taken thus to broaden the influence and scope of this publication. With New and Nonofficial Remedies, which contains the list of articles accepted by the Council on Pharmacy and Chemistry, already spoken of as something in the nature of a Pro-Pharmacopeia, and with English and German corresponding members of that council, perhaps the idea of an international *entente cordiale* in matters pharmacopeial is not, after all, so utopian.

1. For details of the magnesium sulphate treatment see the following articles: Meltzer and Auer: Jour. Exper. Med., Dec., 1906. Haubold, H. A., and Meltzer, S. J.: Spinal Anesthesia by Magnesium Sulphate, THE JOURNAL A. M. A., 1906, xlvi, 647. Logan, Samuel: The Treatment of Tetanus by Intraspinal Injections of Magnesium Sulphate for the Control of Convulsions, THE JOURNAL A. M. A., 1906, xlvi, 1502. Robinson, G. Canby: Treatment of Tetanus by Intraspinal Injections of Magnesium Sulphate, THE JOURNAL A. M. A., Aug. 10, 1907, xlix, 493. Miller: Am. Jour. Med. Sc., December, 1908.

Medical News

ILLINOIS

Hospital Dedicated.—St. Marguerite's Hospital, Peru, was dedicated with impressive ceremonies by the Bishop of Peoria, June 10.

Clinical Laboratory.—The clinical laboratory established at Paris by Dr. B. G. R. Williams has proven so successful during the last year that bacteriologic and pathologic departments are being established. The work in the laboratory is being done by the local practitioners.

Personal.—Dr. Robert J. Burns, Freeport, has been elected physician of Stephenson county.——Dr. H. R. Riddle, Mechanicsburg, has been elected physician to Sangamon county.——Dr. and Mrs. Charles G. Farnum and Dr. Alfred A. Knapp and family, Brimfield, have sailed for Europe.——Dr. Milo Eaton has assumed the duties of bacteriologist and chemist of the Peoria health department.——Dr. Martin R. Doyle has been appointed a member of the board of fire and police commissioners of East St. Louis.

Chicago

Hospital News.—A new building for the Chicago Baptist Hospital was discussed at a dinner given by the Woman's Aid Society of the institution, June 17.——The establishment within the city of a day camp for children predisposed to tuberculosis was discussed at a meeting of the board of directors of the Chicago Tuberculosis Institute, June 18. A committee was appointed to work out details of such a camp. ——At the annual meeting of the Chicago-Winfield Tuberculosis Sanatorium, June 15, Dr. Theodore B. Sachs was elected a director.——The Chicago Eye, Ear, Nose and Throat College announces the completion of an annex adjacent to its present quarters, which doubles the capacity of the institution.——At the benefit concert given June 16, under the auspices of the Woman's Auxiliary of St. Mary's of Nazareth Hospital, about $5,000 was realized to endow a bed.

Chicago Medical Society.—At the annual meeting of the Chicago Medical Society and its branches, the following officers were elected: President, Dr. John A. Robison; secretary, Dr. George F. Suker; councilors at large, Drs. George W. Webster, Merlin Z. Albro, William N. Senn, Edward A. Fischkin and Charles C. O'Byrne; alternate councilors at large, Drs. Willis O. Nance, James P. Houston, John E. Rhodes and Bernard Fantus. The North Side Branch elected Dr. Rudolph W. Holmes, president; Dr. William Hessert, vice-president; Dr. Paul F. Morf, secretary; Dr. Robert B. Preble, councilor; and Dr. Coleman G. Buford, alternate. The North Shore Branch elected Dr. Charles M. Robertson, president; Dr. Adolph C. A. Gaul, vice-president; Dr. Samuel J. McNeill, secretary; Drs. Clarence W. Leigh and Thomas A. Hogan, councilors, and Drs. Michael A. Griffin and William G. Lee, alternates. The Evanston Branch elected Dr. George W. Boot, president, Dr. William C. Danforth, vice-president; Dr. Stephen V. Banderston, councilor, and Dr. Alice B. Brown, alternate. The Northwest Branch elected Dr. Ralph S. Michel, president; Dr. Melchoir Whise, secretary; Dr. Charles R. Moore, councilor, and Dr. Wallace M. Burroughs, alternate. The West Side Branch elected Dr. David W. Graham, president; Dr. Benjamin H. Breakstone, vice-president; Dr. Bernard Fantus, secretary; Dr. Clarence B. King, treasurer; Dr. Cassius C. Rogers, councilor, and Dr. Andrew M. Harvey, alternate. The Aux Plaines branch elected Dr. John W. Tope, president and alternate councilor; Dr. W. Evan Baker, Chicago, vice-president; Dr. Fred. W. Kettlestrings, secretary-treasurer, and Dr. Charles E. Humiston, councilor. The Douglas Park Branch elected Dr. Vanuy F. Masilko, president; Dr. John H. Edgecomb, vice-president; Dr James G. Carr, secretary; Dr. Joseph L. Abt, councilor, and Dr. Edward E. Cunat, alternate. The Stock Yards Branch elected Dr. Samuel T. Felmlee, president; Dr. Samuel L. Fridus, vice-president; Dr. Louis J. Isaacs, secretary; Dr. Hugo E. Betz, councilor, and Dr. David R. Landau, alternate. The Englewood Branch elected Dr. Martin W. Bacon, president; Dr. Arthur C. Kleutgen, vice-president; Dr. C. Hubart Lovewell, secretary-treasurer; Dr. Carl Langer, councilor; Dr. Garrett J. Hagens, alternate, and Drs. William H. Bohart and John G. Campbell, members of Englewood council. The South Side Branch elected Dr. William Fuller, president; Dr. Otis H. Maclay, secretary; Drs. Joseph L. Miller, G. Frank Lydston, and Edwin B. Tuteur, councilors, and Drs. Edward P. Norcross, M. Milton Portis, and Jacob F. Burkholder, alternates. The South Chicago Branch elected Dr. Don S. Harvey, president; Dr. John S. Stanton, secretary; Dr. Demetrius Staneff, treasurer; Dr. Elmer E. Tansey, councilor, and Dr. John A. Anderson, alternate. The Calumet Branch

elected Dr. Charles F. Clayton, president; Dr. Raymond C. Libberton, vice-president: Dr. William H. Connor, secretary-treasurer; Dr. Jacob S. Kaufman, Blue Island, councilor, and Dr. Gerhard Seim, Blue Island, alternate.

MARYLAND

Baltimore

Faculty Election.—The faculty of Maryland Medical College has elected the following officers: President, Dr. Alexander D. McConachie; vice-president, Dr. J. William Funck; dean, Dr. Harry Gross, and assistant dean, Dr. William S. Smith.

Personal.—Dr. William H. Welch sails for Europe this month.——Dr. William S. Halsted sailed for Europe June 11. ——Dr. John W. Chambers has had conferred on him the honorary degree of D.Sc., by Washington College, Chestertown. ——The degree of LL.D. was conferred on Dr. Randolph Winslow by the University of Maryland, June 16, and the degree of A.M. on Dr. Samuel M. Wagaman, Hagerstown.——Dr. Harry Friedenwald was elected president of the Federation of American Zionists at its twelfth annual meeting in New York, June 16.——Drs. Lillian Welsh and Mary Sherwood sailed for Europe June 16.——Dr. Louis W. Knight was given the honorary degree of LL.D. by Loyola College, Baltimore, June 17.—— Dr. Harry Friedenwald sailed for Europe June 16.——Dr. Samuel C. Chew, professor of medicine in the University of Maryland, has resigned his position, which he has held for nearly forty-five years.

Commencement Exercises.—At the thirty-third annual commencement of Johns Hopkins University, June 8, there were 50 medical graduates, and the following appointments were announced: Adam T. Bruce, fellowship in biology; William Dana Hoyt, Baltimore, University fellowship; Emma Longfellow, Machias, Maine, physiology; Francis Weld Peabody, M.D., Boston, pathology; and the following in the medical faculty: Dr. J. Morris Slemons, associate professor of obstetrics; Dr. J. H. Mason Knox, associate in pediatrics; Charles D. Snyder, Ph.D., associate in physiology; Dr. N. E. B. Iglehart, instructor in surgery; Dr. Edward M. Singewald, instructor in neurology; Dr. G. Lane Taneyhill, Jr., instructor in neurology; Dr. Charles W. Larned, instructor in medicine; Dr. Henry Lee Smith, instructor in medicine; Dr. Samuel Wolmon, instructor in medicine; Dr. Harry S. Greenbaum, instructor in medicine; Dr. Leonard G. Rowntree, instructor in experimental therapeutics: Arthur H. Koelker, Ph.D., instructor in physiologic chemistry; Dr. Herbert M. Evans, instructor in anatomy; Dr. Milton C. Winternitz, instructor in pathology; Dr. Charles M. Byrnes, instructor in neurology; Dr. John W. Churchman, instructor in surgery; Dr. J. Staige Davis, instructor in surgery; Dr. William A. Fisher, Jr., instructor in surgery; Dr. Omar B. Pancoast, instructor in surgery; Dr. Edward H. Richardson, instructor in gynecology; Dr. Frank C. Ainley, assistant in obstetrics; Dr. Bertram M. Bernheim, assistant in surgery; Dr. Christian Dencker, assistant in neurology; Dr. Willis D. Gatch, assistant in surgery; Dr. Emil Goettsch, assistant in surgery; Dr. Eugene J. Leopold, assistant in medicine; Dr. David J. Macht, assistant in medicine; Edgar A. Slagle, Ph.D., assistant in medicine, in charge of the laboratory of the chemical division of the medical clinic; Dr. Thomas P. Sprunt, assistant in pathology; and Dr. Charles H. Stubenraugh, assistant in medicine.—— The College of Physicians and Surgeons graduated a class of 46 June 2. The degrees were conferred by Dr. William P. Spratling.

MASSACHUSETTS

Hospital Incorporated.—The Gloucester Hospital has been incorporated with a capital of $50,000 by J. Warren Wursen and Martha J. Choate.

Graduation Exercises.—The commencement exercises of the College of Physicians and Surgeons, Boston, were held June 2, and a class of 14 was graduated. The doctorate address was delivered by Dr. Charles H. Hughes, St. Louis, on "Our Battle for Humanity and How to Fight It," and degrees were conferred by Dr. C. C. Farnham.

Alumni Elect.—At the annual dinner and meeting of Tufts Medical Alumni Association, June 8, the following officers were elected: Dr. William B. Keeler, president; Drs. Loretta J. Cummins and Caroline A. Cox, vice-presidents; Dr. Leon S. Medalia, secretary; Dr. Oliver G. Tinkham, Weymouth, assistant secretary, and Dr. H. Howard Flagg, treasurer.

Personal.—Capt. Edward A. Cunningham, Cambridge, and Lieut. Calvin B. Faunce, Boston, assistant surgeons, medical department M. V. M., have been assigned to the ambulance company section of the hospital corps.——Dr. Clement H. Halloweil has succeeded Dr. Arthur S. Hartwell, resigned, as a member of the board of health of Norwood.——Dr. Freeman A. Hall, Worcester, has been elected superintendent of the Burbank Hospital, Fitchburg.——Dr. Harry H. Nevers has been appointed city bacteriologist and physician to the board of Health of Lawrence.

Tuberculosis.—At the annual meeting of the associated committees of the Massachusetts Society for the Prevention and Control of Tuberculosis, held at Boston, the following officers were elected: President, Dr. Arthur T. Cabot; secretary, Dr. Thomas F. Harrington; corresponding secretary, Dr. John B. Hawes, all of Boston; executive committee, Drs. Alfred Worcester, Waltham; Henry Jackson, Boston; H. Lincoln Chase, Brookline, and the chairmen and secretaries ex officio.——The trustees of the Boston Consumptive Hospital have united in a petition to the city government asking an appropriation of $29,000 to be expended experimentally by an appointed committee in the maintenance for one year at Franklin Field of a school for 200 tubercular children.——The contract for the State Tuberculosis Sanatorium, Springfield, has been awarded to the H. C. Wood Company of Westfield, for $56,671.

NEW YORK

Sale of Skimmed Milk Illegal.—A decision of the Court of Appeals has sustained the lower courts in overruling the demurrer of a dairy company to an action brought by the state to recover a $5,000 penalty for selling skimmed milk. The company demurred on the ground that the statute under which the milk was sold was unconstitutional, in that it discriminated between New York and the other counties.

Personal.—Dr. Willis G. McDonald of Albany has had the honorary degree of LL.D. conferred on him by Fordham University.——Drs. M. May Allen, Nathan W. Soble and Montgomery E. Leary have been elected directors of the Rochester Public Health Association.——Dr. George W. Bates, Schenectady, who has served 43 years with the military companies of New York, Connecticut and Massachusetts, has resigned as captain and assistant surgeon of the Second Infantry, N. G. N. Y.

Consumptive Day-Camp Opened.—Last week there was opened a day-camp in Poughkeepsie, where consumptives go to obtain the benefit of rest, sunshine, fresh air and good food under proper medical supervision. Patients are also instructed in general hygiene, the nature of infection of tuberculosis, and measures to be taken to prevent its spread. The equipment of the camp consists of one nurses' tent, five 14 x 14, and eleven 9 x 9 tents, a dining room and laundry, and two bath houses. The camp was constructed and equipped at a cost of $5,000 by the citizens of Poughkeepsie, and the management is under the direct control of the local board of health.

Must Report Tuberculosis Cases.—Dr. Eugene H. Porter, State Commissioner of Health, says he will compel physicians of the state to obey the new law which requires that all cases of tuberculosis shall be reported as soon as discovered through the local health officers. The name, age, sex, color, occupation, place where last employed and address of every person known to the physician to have tuberculosis must be reported to the local health officer within twenty-four hours after the knowledge comes to the physician. Failure to comply with this law is a misdemeanor and is punishable with a fine of from $5 to $50. The enforcement of this law was begun last year, but the returns have been far from satisfactory. Last year 26,230 cases were reported, and it is estimated that at least 75,000 cases exist in the state.

Buffalo

Personal.—Dr. Alfred Regan has succeeded Dr. Timothy F. Donovan as sanitary inspector of the health department. Dr. Donovan has accepted a position in Bellevue Hospital, New York City.——Dr. Edward D. Clark has been appointed surgeon of the steamer *Northwest* for the season.

Fire at State Hospital.—An overheated kiln in the drying room of laundry building of the Buffalo State Hospital set fire to the building June 16, and caused damage to the extent of about $15,000. No injury was done the buildings of the hospital proper, and owing to the excellent discipline there was no panic among the inmates of the institution.

Academy Election.—At the annual meeting of the Buffalo Academy of Medicine, June 8, the following officers were elected: President, Dr. Earl P. Lothrop; secretary, Dr. Harry R. Trick; treasurer, Dr. Lawrence Hendee; trustee, Dr. Grover W. Wende. Section on surgery: Chairman, Dr. Thew Wright; secretary, Dr. James A. MacLeod. Section on medicine: chairman, Dr. Thomas J. Walsh; secretary, Dr. Henry P. Frost. Section on obstetrics and gynecology: Chairman, Dr. Burt C. Johnson; secretary, Dr. James F. Whitwell. Section on pathology: Chairman, Dr. Frederick J. Parmenter; secretary, Dr. Norman K. MacLeod.

New York City

Commencement.—The eleventh annual commencement exercises of Cornell University Medical College were held June 9, when a class of 61 was graduated. The address to the graduating class was delivered by Dean T. L. Crape of the university faculty.

Lease Buildings for Hospital.—The New York Neurological Institute has leased the six-story building at 149 and 151 East Sixty-seventh street, which will be fitted up for hospital purposes. The institution has the option to purchase the property at $175,000. Among the incorporators of the institute are Drs. Joseph Collins, Pearce Bailey and Joseph Fraenkel.

More Straus Milk Depots.—Ten additional Straus milk depots have been opened in the city. They are located in parks and on recreation piers; there are now seventeen milk stations altogether. At the beginning of his work eighteen years ago Mr. Straus supplied 34,000 bottles of milk during the first year. Last year he dispensed over 34,000 bottles of milk and 1,500,000 glasses of pasteurized milk.

Personal.—Dr. John Aspell and Dr. James N. Butler have been elected directors of the Fordham College Alumni Association.——Dr. and Mrs. E. H. Porter, Dr. H. Holbrook Curtis, and Dr. and Mrs. Leigh Hunt have sailed for Europe.——Drs. Sidney A. Stein, H. Fred Lange Ziegel and David Sheitlis have been appointed adjunct visiting physicians to Beth Israel Hospital, and Dr. Eli Moschowitz has been appointed pathologist to the same institution.——Dr. Dell E. Yarnell has resigned as secretary of the Green Point Branch of the Y. M. C. A.——Dr. Robert H. Herkimer, formerly chief of the bureau of contagious diseases, Brooklyn, has been made diagnostician of the bureau.——Dr. Willard T. Graham, Brooklyn, has been appointed superintendent of the Indiana Methodist Hospital, Indianapolis.——A fire in the house of Dr. Walter B. James, June 10, did damage to the extent of about $50,000.

NORTH CAROLINA

Physicians Found Not Guilty.—In the Superior Court, June 12, at Wadesboro, a jury brought a verdict for the defendants in a suit in which Mrs. Reddie Kiker asked damages of $10,000 for alleged malpractice from Drs. Romulus Armfield, Marshville, and H. Moses Brooks, Olive Branch.

Commencement.—The commencement exercises of the Medical Department of the University of North Carolina were held in Chapel Hill, June 1, when a class of 12 was graduated. Dr. William H. Welch, Baltimore, delivered the doctorate address. The degree of LL.D. was conferred on Dr. Richard Henry Whitehead, the new dean of the Medical Department of the University of Virginia.

Personal.—Dr. Andrew J. Crowell, Charlotte, is reported to be seriously ill at the Charlotte Sanatorium.——Dr. Roger A. Smith, Goldsboro, sustained severe injuries in a railway accident last week.——Dr. John S. McKee, Raleigh, has been elected demonstrator of obstetrics, and Dr. J. M. Harper, Kinston, assistant in chemical pathology in the Medical Department of the State University.——Dr. Charles E. Ross has been elected attending physician of the State Institution of Deaf and Dumb at Morgantown.——Dr. S. Westray Battle, Asheville, recently returned from England.

PENNSYLVANIA

Medical Building Planned.—Architects are making plans for a School of Medicine at the University of Pittsburg to adjoin the Grant building now being completed for the university. The building is to be in the same general style of architecture, and will cost about $200,000.

Tablet to Early Surgeon Unveiled.—With impressive exercises, a tablet to the memory of Nathaniel Bedford, the first surgeon at Fort Pitt, was unveiled June 2, in Old Trinity Church Yard, Pittsburg. Dr. Bedford located in Pittsburg in 1816, and the tablet was presented by the Pittsburg Chapter, D. A. R.

Personal.—Dr. Thomas S. Arbuthnot has been elected dean of the College of Medicine of the University of Pittsburg.——Dr. J. Calvin Wilson, Franklin, has been commissioned captain and assistant surgeon of the Sixteenth Infantry, N. G. Pa.——Dr. Briscoe has been elected resident physician of the State Hospital, Norristown.——Dr. Charles D. Schaeffer, formerly mayor of Allentown and chief surgeon of the Allentown Hospital, who has been critically ill, is reported to be improving.

Philadelphia

University of Pennsylvania Commencement.—The one hundred and fifty-third annual commencement exercises of the University of Pennsylvania were held in the Academy of Music June 16. A class of 111 was graduated and the annual address was delivered by the dean of the college department, Josiah Penniman, who spoke on "The Best in the University Training."

Guard Hospitals Against Noise.—The Director of Public Safety has decided to have the police take every precaution this year to protect the sick and injured from the annoyances they have heretofore suffered as a result of the celebration of Fourth of July. Policemen will be placed in front of hospitals and other institutions with instructions to enforce orders that no noise is to be made within a certain distance of these institutions.

Internes Appointed.—Director Neff has appointed the following men to the resident staff of the Philadelphia General Hospital: Drs. John S. Saurman, Richard H. Lyon, Carol R. Baker, Philip F. Williams, James C. Lyons, Leon Jonas, Arthur F. Jackson, William Hartz, Samuel Largman, Hyman I. Goldstein, Robert P. Devereux, Herbert H. Thompson, Etley P. Smith, John H. Lilley, Oscar J. Klevan, Charles P. Henry, Benjamin W. Key, Louis C. Goldman and Hubert B. Gudger.——Dr. John P. MacDonald has been appointed to the resident staff of the Frankford Hospital.

Dispensary Staff Changes.—The following have resigned from the dispensary staff of the Hospital of the University of Pennsylvania: Drs. Henry D. Jump, Albert P. Francine, Clifford B. Farr, Myer Solis-Cohen, George T. Lukens, Robert S. McCombs, Howard K. Hill, Harvey E. Schock, E. C. Bender, Charles W. Fox, Daniel M. Hoyt, Linton Turner and Isaac H. Jones.——The following have been appointed to the staff: Chief consultant, Dr. Milton H. Fussel; physician in charge, Dr. Frederick H. Klaer, and assistant physicians, Drs. Edward H. Goodman, George M. Piersol and Robert Torrey.

Personal.—Dr. Charles E. de M. Sajous received the degree of LL.D. at the annual commencement of St. Joseph's College, June 15.——Drs. Henry W. Cattell, Everett P. Barnard, D. B. Shumway and Francis W. White have sailed for Europe.——Dr. George E. Price has been made assistant professor of mental and nervous diseases and Dr. J. Leslie Davis assistant demonstrator of anatomy in Jefferson Medical College.——Dr. Adolph Feldstein, a visiting physician at the Jewish Hospital for forty-four years, has resigned on account of advanced age.——Dr. Charles A. Oliver has resigned as clinical professor of ophthalmology in the Woman's Medical College of Pennsylvania.

Talks to Mothers.—The Department of Public Health is concerned in the health of infants and it has organized an alliance for the care of babies. A corps of 150 physicians has volunteered its services, committees have been organized in every ward and school houses have been obtained where lectures will be given every Wednesday, beginning June 16, for the next eight weeks. These lectures will be given under the direction of the Philadelphia Alliance for the Care of Babies, under the auspices of the Department of Public Health, the Board of Education, the Congress of Mothers, the Home and School League and allied associations. Each member of the ward committees will be supplied with a list of young mothers in their ward, and an effort will be made to interest each in the lectures. Some of the subjects to be taken up are the preparation and care of milk, the danger of flies, diet, bathing, cleanliness, the care of the eyes, sanitation and home conditions.

GENERAL NEWS AND COMMENT

Warning Concerning Unauthorized Agent.—Dr. P. L. and A. H. Hilsman of Albany, Ga., write that a man who calls himself Dr. M. Wagner of Jacksonville, Fla., pretends to represent some instrument houses. One of these, the Kny-Scheerer Company, in reply to an inquiry, stated that the alleged agent has never represented them, and that they desire assistance in locating him. Their address is 410 W. 27th street, New York City. Drs. Hilsman write that this Dr. Wagner took orders for goods and received money on account, but no goods have been sent. They describe him as a German with broken accent, about 5 feet 8 inches high, about 140 pounds in weight, and with dark hair and blonde mustache.

The Carroll Fund.—The following subscriptions have been received since the last report:

Medical Officers of the Army	$ 20.00
Medical Officers of the Navy	15.00
Montana State Medical Association	25.00
Dr. F. R. Slopanskey, Helper, Utah	3.00
Dr. P. S. Spearman, Whiting, Iowa	1.00
Harris County Medical Society, Houston, Texas	26.75
Dr. Charles K. Winne, Jr., Albany, N. Y.	5.00
Leyland Line, New Orleans, M. J. Sanders, Manager	25.00
Jefferson County Medical Society, Louisville	16.00
Aux Plaines Branch of the Chicago Medical Society	10.00

Dr. C. M. Drake, Knoxville, Tenn.	5.00
American Investment Company, Atoka, Okla.	5.00
American Association of Pathologists and Bacteriologists, Buffalo, N. Y.	100.00
Total	$ 256.75
Previously reported	5,392.86
Grand total	$5,649.61

Remittances should be sent to Major Ireland, care Surgeon-General's Office, War Department, Washington, D. C.

Civil Service Examinations.—The United States Civil Service Commission announces an examination on July 14, at various places, to secure eligibles from which to make certification to fill vacancy in pathology (male) with salary of $2,000 per annum in the Freedman's Hospital, Washington, D. C. Microscopic technic, hematology, pathologic histology, gross pathology, and training and experience are the subjects for examination, and experience of at least one year in a pathologic laboratory and ability to make pathologic examinations and report thereon are essential.——An examination is announced for July 21, at various places in the United States to secure eligibles from which to make certification to fill vacancies as they may occur in the position of physician in the Panama Canal service. Applicants must be citizens of the United States, between 20 and 45 years of age, graduates of recognized medical schools, and must have had at least one year's experience as internes in general hospitals. Application should be made to the United States Civil Service Commission, Washington, D. C., or the secretary of the local board of examiners.

Elections.—At the twelfth annual meeting of the American Gastro-Enterological Association, held in Atlantic City, June 7 and 8, the following officers were elected: President, Dr. Julius Friedenwald, Baltimore (re-elected); vice-presidents, Drs. Walter B. Cannon, Boston, and John A. Lichty, Pittsburg, and secretary-treasurer, Dr. Charles D. Aaron, Detroit.——At the meeting of the Lackawanna Association of Railway Surgeons, held in Delaware Water Gap, Pa., May 14 and 15, the following officers were elected: President, Dr. Henry T. Dana, Cortland, N. Y.; vice-presidents, Drs. Richard T. Bang, New York City, and George M. Cady, Owego, and secretary, Dr. Jonathan M. Wainwright, Scranton, Pa.——The twenty-fourth annual Conference of the State and Provincial Boards of Health of North America was held in Washington, D. C., June 4-6, and the following officers were elected: President, Dr. Joseph Y. Porter, Jacksonville, Fla.; vice-president, Dr. Charles A. Hodgetts, Toronto, Ontario (re-elected), and secretary-treasurer, Dr. Henry M. Bracken, Minneapolis, Minn.——At the twenty-third annual meeting of the American Orthopedic Association, held in Hartford, Conn., June 15-17, the following officers were elected: President, Dr. Augustus Thorndike, Boston; vice-presidents, Drs. Albert H. Freiberg, Cincinnati, and Michael Hoke, Atlanta, Ga.; secretary, Dr. Robert B. Osgood, Boston (re-elected); treasurer, Dr. Gwilym G. Davis, Philadelphia (re-elected), and executive committee, Drs. Ansel G. Cook, Hartford, John Ridlon, Chicago (re-elected), Robert W. Lovett, Boston, Reginald H. Sayre, New York City, and Robert B. Osgood, Boston.

CANADA

Antituberculosis Societies.—Charlotte County, N. B., Association for the Prevention of Tuberculosis has been formed at Saint Stephen.——The Auxiliary Antituberculosis Society, at Victoria, B. C., held its annual election May 26.

Commencement.—At the annual commencement exercises of McGill University, Montreal, a class of 71 was graduated, and about 100 were graduated from Toronto. In the Medical Department of Toronto University, there has been a great falling off in the freshman class, due it is believed, to the recent establishment of the five-year course.

Personal.—Dr. H. McIntosh, formerly medical superintendent of the Vancouver General Hospital, is spending three months in hospitals in eastern Canada before commencing private practice in Vancouver.——Dr. McGrath, St. Johns, N. B., has been made a member of the local board of health.——The faculty of the Manitoba Medical College, on June 15, presented a gold watch, chain and locket to Dr. H. H. Chown, dean of the faculty, in recognition of his long and arduous service in behalf of the institution.

Provincial Medical Association.—The twenty-ninth annual meeting of the Ontario Medical Association was held in Toronto, June 1-3. The features of the meeting were the discussion of peritonitis, introduced by Dr. John B. Deaver, Philadelphia, and that on the pasteurization of milk, introduced by Dr. John A. Amyot, Toronto, who advocated the official pasteurization of all milk not certified; followed by Dr. Charles Sheard, Toronto, who objected to pasteurization on the gound that dirty milk would be brought into the city; Dr. Henry T. Machell, who favored pasteurization during the summer months, and Dr. Charles J. C. Hastings, Toronto, who strongly upheld Dr. Amyot. It was decided to meet next year in Niagara Falls. The following officers were elected: President, Dr. Henry R. Casgrain, Windsor; vice-presidents, Drs. Harry B. Anderson, Toronto; John M. Rogers, Ingersoll, James C. Connell, Kingston; Joseph R. Arthur, Collingwood; secretary, Dr. Frederick A. Clarkston, Toronto; assistant secretary, Dr. G. S. Strathy, Toronto; and treasurer, Dr. J. Heurner Mullin, Hamilton.

FOREIGN

Honors for Tamassia of Padua.—Prof. A. Tamassia of the chair of medical jurisprudence at the University of Padua was recently elected member of the Italian senate, and his election and the thirtieth anniversary of his connection with the university were celebrated simultaneously May 29 by the presentation from the citizens, faculty and students of parchment testimonials, a gold medal, a bust of himself, and a banquet.

Short Vacation Course at Berck.—Calot announces a course of nine lectures, August 2 to 8, with demonstrations and practical training in orthopedics for the general practitioner and in treatment of external tuberculous lesions, affections of the bones, spine, etc. The course has been arranged partly to accommodate visiting physicians and, as the number of places is limited, application must be made in advance. Address Dr. Privat, Institut Orthopédique, Berck Plage (P. de C.) France.

Policlinic at Cairo.—An Egyptian society has been formed for the purpose of organizing hospital facilities where needed and has succeeded in interesting the government, so that a large policlinic with a connecting hospital will soon be opened at Cairo with an annual subsidy. The medical chief is Dr. Hilmi, and six services have already been organized; they are in charge of four German and two Egyptian physicians, but later Egyptian physicians will be given the preference throughout. It is hoped that the hospital will be ready to be opened in January.

Second International Congress on Industrial Accidents.—China, Japan, Greece and the various European countries except possibly, Russia and Spain, sent delegates to this congress, which convened at Rome the last week in May. The western hemisphere does not seem to have been represented. Among the points especially emphasized in the proceedings was the necessity for extremely careful examination of the injured workman at the first examination, and for shortening the interval between the accident and the awarding of the indemnity; delay fosters neuroses which otherwise would not develop or might be promptly cured, as the Germans are now learning. One of the resolutions urged the encouragement and generalization of study of the working man at his work, not only by the medical but by certain other professions. Another resolution urged that the first examination be made as complete as possible and the law's delays reduced to the minimum. Another advocated holding lectures and exhibitions in industrial centers to inform working men of the legislation and other measures affecting and protecting them, both from the legal and the hygienic points of view. The congress also expressed its approval of having special institutions in the larger industrial centers to be devoted especially to treatment of industrial accidents. Perhaps the main feature of the congress was the presentation and comparison of the different methods of handling the subject of industrial accidents in various countries. The next congress will meet at Dusseldorf, Germany.

LONDON LETTER

(From Our Regular Correspondent)

London, June 5, 1909.

London School Children

The report of Dr. James Kerr, medical officer for education of the London County Council, for the twenty-one months ending, December, 1908, which has just been published, contains much of interest. It is only beginning to be realized that in providing free and compulsory education for children it is necessary for the state also to assume control over their health in order to secure as good results as possible from the enormous expenditure. Early legislation took no account of this fact whatever: it simply provided the schools and compelled parents to send their children to them. Dr. Kerr insists that to secure the best results every public provision for the care of children must be placed under the control of the education authority. This will simplify laws and avoid endless overlapping and complications. An attempt has been made to regard all that concerns the child in school as under the

control of the educational authority and all that concerns it outside the school as under the control of the local sanitary authority. This has led to a want of coordination and failure in securing the desired ends. Thus attempts to secure cleanliness of the person have been frustrated by lack of adequate means. Dr. Kerr is of opinion that the only solution is to commit all provisions for aiding growth and development during school life, from the ages of 3 to 16, to the education authority, which would then administer all matters relating to feeding, teaching, cleansing, medical treatment and social protection of children.

Dental Surgery and the Public Health

At the annual meeting of the British Dental Association Mr. F. Lawson Dodd delivered an address on this subject. He said that they were to day witnessing the gradual recognition of dentistry as a branch of preventive medicine. The condition they had to face was that 86 per cent. of the poorer classes—who constitute seven-tenths of the population—are suffering from dental disease to a greater or less degree. The building up of a system of treatment of the dental disease among elementary school children was in view. The first aim would be the extension and multiplication of facilities for the care of the teeth. Not until a dental clinic was established in every center of elementary education would the dentist be doing his share in the maintenance of the welfare of the race

Tuberculosis Exhibition at the East End

A tuberculosis exhibition, organized by the National Association for the Prevention of Tuberculosis, has been opened in Whitechapel by Mr. Burns, president of the local government board. The causes of consumption, such as dirt and the absence of light and air are illustrated by photographs of close unventilated rooms. A full-size reproduction of a single-roomed London tenement, dirty, dark and airless, in which four persons live, stands side by side with the same room, swept and garnished. There are models of unhealthful dwellings, including the now condemned back-to-back dwellings. Mr. Burns computed that 300,000 persons in England and Wales suffer from tuberculosis, but there has been great improvement. Forty years ago the death rate from the disease was 247 per 100,000; now it is only 115. However, in spite of the improvement, one out of every 11 deaths is due to tuberculosis. In Germany, he said, conditions are even worse. Of every 1,000 German workmen invalided between the ages of 20 and 45, no fewer than 548 suffer from tuberculosis.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, June 3, 1909.

The Progress of Cremation

The Society for the Encouragement of Cremation has recently held its twenty-eighth general assembly, under the presidency of M. Barrier, director of the veterinary school of Alfort and member of the Academy of Medicine. M. Georges Salomon, general secretary of the society, set forth the increase of cremation. There are at present in France cremation furnaces at Paris, at Rouen, at Marseilles and at Rheims; there will be one soon at Lyons and another at Dijon. Since cremation has been authorized, a hundred thousand bodies have been burned at Paris alone, and the number increases each year.

The society is redoubling its efforts. A committee has been instructed to ask the Minister of Public Works to have the railway charges on urns containing the ashes of the dead reduced below those on the corpses themselves, for an evident anomaly exists here. The society also asks that the municipal council of Paris install a second crematory monument at the Montparnasse cemetery, in addition to that at Père Lachaise The municipal council has made a grant of 1,000 francs ($200) for an apparatus for rapid cremation; this prize has been raised to $500 by the Society for the Encouragement of Cremation, and is to be awarded through a competitive contest.

Commission on the Abuse of Free Hospital Privileges

As I mentioned in a previous letter, a commission has been appointed to study the means of preventing the admission of well-to-do patients into the hospitals (THE JOURNAL, May 1, 1909, lii, 1437). This commission consists of six medical members, representing various professional bodies, and seven non-medical members, drawn from the administration of the public charities, one of whom is a secretary without the right to vote. It was to be expected that this mixed character of the commission would scarcely tend toward a ready understanding. Thus, Dr. Tourtoulat, delegate of the *Syndicat des médecins du département de la Seine* offered the resolution that "the hospital is exclusively reserved for paupers and the needy, and its services are gratuitous;" the medical members voted unanimously for and the non-medical members against it. M. Mesmeu, director of the public charities, remarked that he opposed the resolution because it suppressed the revenues of the hospitals. As a matter of fact, the admission of paying patients brings in only about $40,000—not a great item in a budget of $7,000,000. At all events, the incident shows that the composition of the commission does not allow the physicians to gain their point, even on an essential point on which all are in complete agreement.

Medical Secrecy and Certificates Delivered After Death

The Court of Appeals (*Cour de Cassation*) has decided recently that Dr. Routier, head of a service at the Necker Hospital, did not violate professional secrecy in giving to the sister of a patient on whom he operated a certificate of the causes of death. The line of the argument for Dr. Routier was that the cause of death ought always to be known, if not to the public, at least to the public authorities and to the family. How could measures be taken against contagious diseases if the causes of the deaths therefrom were not known? How could mortality statistics be drawn up if the various causes of death remained secret? The physician, in such cases, is under obligation to certify the cause of death to the proper authorities; and the most elementary propriety requires that he also furnish to the family of the deceased all particulars in regard to the cause of death. It would be more than strange if such information were withheld from the grief-stricken relatives under the pretext of professional secrecy. These arguments were sustained by the court.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, June 2, 1909.

Organization for Care of Nurslings in Bavaria

Under the title *Zentrale für Säuglingsfürsorge* in Bayern there has been founded in Munich an organization for the systematic campaign against infantile mortality in Bavaria, to act in cooperation with communities, associations and societies at present providing institutions under independent management for the care of infants. This central organization will be conducted by a working committee, consisting of university professors, pediatricians, government officials and others experienced in the care of infants. The purpose of the institution is, first, to establish general principles for development of infantile hygiene and second, to advance the local institutions by expert scientific advice and financial assistance. The organization is also to assist the government in the improvement of infantile hygiene by its advice; it receives from the state treasury an appropriation to cover the expense of management.

A German Motherhood Society

An important means for the campaign against infantile mortality is care for the puerperal period among working women, so that they may be in a position to nourish and care for the infant at its most dangerous period, i. e., in the first weeks of life. For this reason the Reichstag has made the provisions which I have noted in a previous letter. The bill for imperial insurance regulation also treats this question and provides for further care for lying-in women. These provisions, however, are insufficient to insure the proper care of new-born children by working women. For this reason efforts of late have been increasing to insure lying-in women the means of sparing themselves a long enough time after delivery and of providing themselves sufficient nourishment, so that they may themselves nurse their infants, as far as possible or at least devote themselves sufficiently to their care. The first motherhood society, which is to be regarded as a forerunner of a general motherhood insurance, was founded a short time ago at Carlsruhe. The functions of the society consist in the provision of money for lying-in women and nursing premiums. At the same time the office serves the purpose of instruction and explanation. The member has a claim on the society only when she has belonged to it at least one year. Only residents of Carlsruhe or persons employed there whose private or family income for the last year did not exceed the sum of $750 (3,000 marks) are entitled to membership. Members who leave Carlsruhe but still reside in Germany are entitled to a claim on the society only until the next demand. As money for childbed after a membership for one year $5 (20 marks), after two years $7 50, after three years $10 are paid, half of which is given on notice of delivery

and one-fourth after the lapse of one and two weeks each. Under special circumstances the management may pay the whole sum at one time. In case of twins the sum is raised $2.50 (10 marks). Mothers belonging to the society who suckle their children for six weeks after delivery receive a nursing premium of 75 cents (3 marks), and those who continue to nurse their children three months after delivery receive a further premium of 75 cents. Every member pays as monthly dues 12 cents (50 pfennig). Some officials and sick benefit associations have already placed considerable sums at the disposal of the new society.

Traveling Tuberculosis Exhibitions

In its efforts against tuberculosis the German central committee has recently availed itself of the so-called traveling tuberculosis museums, that is, a collection of exhibition material illustrating the origin, spread, and control of tuberculosis. These exhibitions can be sent to various places and are used in connection with popular lectures arranged by the central committee or in other ways. Such traveling tuberculosis museums have been established in Carlsruhe, Darmstadt and Hannover, and have been sent to various places and inspected by the populace with great interest. The traveling museum of the German central committee consists of the following parts:

1. Illustrating the structure of the human body: Six anatomical plates of the thorax, lungs and the breathing, two models of the thoracic organs.
2. Illustrating the nature and origin of tuberculosis: Figures showing expectoration from the lungs containing tubercle bacilli, thirty kinds of dust from various workshops, a schematic illustration of the entrance of tubercle bacilli into a pulmonary vesicle, also showing the origin of tuberculosis in the mouth, throat and ear.
3. Illustrating the development and course of tuberculosis: Schematic illustration of the various stages of consumption, pathologic preparations of human and animal tuberculosis, Röntgen pictures of various stages of pulmonary tuberculosis, pictures illustrating lupus and tuberculosis of the skin.
4. Illustrating the spread of tuberculosis: Tables showing the total mortality and the mortality from tuberculosis in the German Empire, Prussia, England, Scotland and Ireland.
5. Illustrating the prevention of tuberculosis: Models and figures showing the care of the teeth, tables showing the nutritive value of the most common articles of food, statistics on the connection between tuberculosis and alcoholism. Illustration of the hygiene of dwellings, method of preventing the distribution of sputum (sputum cloths, sputum bottles, sputum cups, and apparatus for disinfection).
6. Illustrating the treatment and cure of tuberculosis: Pictures of popular sanatoria, reclining chairs, tables illustrating the extent and success of invalid insurance in the treatment of tuberculosis and the exhibition of the German institutions for tuberculosis.

New Diagnosis of Insanity

The latest development of serum methods of diagnosis appears to be that of Dr. Much and Dr. Holzmann of the Hamburg Eppendorf Hospital, who publish a reaction in No. 20 of the *Münchener medizinische Wochenschrift* which is claimed to be typical for certain forms of mental disease. They claim that in manic depressive insanity and dementia præcox, substances are found in the blood which are absent in other diseases and in healthy individuals. The method is as follows: Washed human blood corpuscles are dissolved by cobra venom poison. If cobra venom is added to normal human serum the solution of the blood corpuscles proceeds unhindered. On the other hand, it is said that an inhibition occurs on the addition of serum taken from patients with the two above named diseases. The reaction is said to occur in the blood of persons who at the time show no signs of circular insanity, but who belong to families in which this form of mental disease prevails. The authors have tried their method with satisfactory results in 400 cases.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, June 1, 1909.

The Fight Against Trachoma in Austria

Since the infectious nature of trachoma has been recognized, several attempts have been made to suppress or to minimize the epidemics, which in this country have been of daily occurrence. There are three parts of the empire in which the disease has had a firm hold on the population: Hungary, Galicia and Bukovina. Reliable statistics are obtainable only from military sources in regard to the conditions in the past. Thus in 1835 a certain regiment recruiting from the southeastern districts of Hungary, had 74 per cent. of its men affected by trachoma. One consideration must be given to the possibility of an incorrect diagnosis, as the diagnostic means at present at our disposal perhaps allow of a more sure recognition of the disease; but still the prevalence of trachoma in former days was so manifest that it was called "Hungarian" or "Galician ophthalmia," while now it is known here only as "Egyptian ophthalmia." Even thirty years ago, 0.2 to 1. per cent. of the entire population was suffering from the symptoms of trachoma. Since then, much has been done to eradicate it. Thus at present no more than 2 or 3 per cent. of the soldiers suffer from trachoma, especially in the regiments from the affected districts. The maximum was 23 per cent. in a regiment, while the majority of the soldiers are free from it. There are among 162 regiments with 350,000 men no more than 18 regiments affected, with 706 cases last year. This is really a marked improvement if it be compared with the fact that in Galicia there were in this year 5,980 persons who applied to the hospitals for relief from trachoma, or 38 per cent. of all eye patients. The navy of this country is nearly exempt from trachoma. In 1890 there were 0.9 per thousand only of the entire navy affected, while in the report for 1908 only two cases were noted. The means by which the relative freedom of the majority of regiments from all infection is attained is by rigid exclusion of all suspected cases by invalidation into hospitals of all soldiers acquiring the disease and by strict supervision with adequate instructions of regiments stationed in infected or suspected regions. It may be noted, in parenthesis, that while even twenty years ago, our famous ophthalmologists were wont to make a correct guess-diagnosis of trachoma by being told whence the patient came, at present they must be very careful not to misinterpret the fact. Therefore, one does not see approximately as many operations for disfigurement of the eyelids in the eye clinics as was the rule a quarter of a century ago. On the other hand, the eye clinics are a favorite place for the military surgeons, who are sent there by the ministry of war to complete their knowledge in this so important branch of medicine. American physicians will appreciate the work done in this line, if they consider what rigid measures are taken by the American government to prevent the immigration of Russian aliens affected with trachoma, and if they remember that the population of Russia intermingles freely with the Hungarian and Galician population, being united to it partly by the bonds of creed, partly by nationality.

Depopulation of the City

In the distribution of the population, as shown by the report of the board of health, a remarkable change has been noticed within about fifteen years, causing a sure depopulation of the central parts of Vienna, while the peripheral parts, or rather suburbs, have increased in density of population to such a degree that they in their turn will soon be fit for depopulation. The increased facilities for communication, caused by changing the entire system of horse into electric traction cars, the growing wealth and the recognition of the value of pure air for health have prompted many a city dweller to live out of town not only during summer, as is here the custom, but all the year round. Now an unexpected fact has been reported; the city of Vienna is the healthiest spot in Austria. This paradox is explicable only by the assumption that the low density of population there, together with the absence of so many infectious children and adults, have a very satisfactory influence on those who remain there. Whilst the mortality of Vienna is 16.7 per thousand, in the city itself it is only 12.5 per thousand and the morbidity is also low as the diseases of infancy figure only in a small proportion. The increasing population of the outskirts has prompted the erection of many smaller hospitals in these districts, whilst the central hospitals are doomed, for in a year or two, the old General Hospital, well-known to all students, will be pulled down to be rebuilt out of town, in healthy grounds.

Prohibition of the Sale of the "Energos" Fraud

By the ordinance of the Minister of the Interior, the electrical apparatus called "Energos" said, by its manufacturers, to possess healing properties for all nervous disorders, impotency, failing strength, etc., has been struck off the list of salable articles. The wide-spread advertising of this instrument of fraud has also been put under control, and care has been taken that the importation of the various parts of the apparatus be also prevented. What the reason of this sudden energetic action may be is not known; perhaps the repeated petitions by medical corporations have effected the issue of this ordinance. At any rate, it is satisfactory to note that slowly the government comes to understand its duties in regard to the protection of the public in this respect.

Pharmacology

SUCCUS ALTERANS

Report of the Council on Pharmacy and Chemistry

The following report was adopted by the Council:

It is believed that unwarranted and exaggerated therapeutic claims are made for Succus Alterans by its manufacturers, Eli Lilly & Co., Indianapolis. In view of the disastrous results which may follow, if, from the statements made, physicians should be led to rely on the product as a treatment for syphilis, it is recommended that Succus Alterans be refused recognition and that this fact be published with comments.

W. A. PUCKNER, Secretary.

COMMENT: Succus alterans is a preparation which has been put on the market for some years by Eli Lilly & Co., as a remedy for syphilis. The serious character of this disease and especially the deplorable results that ensue from its improper or insufficient treatment, should make a firm hesitate to advise any treatment for it which experience has not demonstrated to be at least as efficacious as that which is generally accepted and well proved. Succus alterans is the result of a combination of circumstances; no one person is responsible for it. It was probably the natural desire for a remedy free from the occasional injurious results of mercury that led Dr. J. Marion Sims to advocate the use of a collection of indigenous American plant drugs, sarsaparilla, stillingia, xanthoxylum, etc., which had a local reputation for the cure of syphilis. These drugs are supposed to be inert when the dried plants were used, and this gave an opportunity for the development of a nostrum. The ingredients are well known, but as their virtues are supposed to be lost in drying, the physician can not have his druggist compound them, but must, perforce, prescribe the proprietary combination.

Those who consented to experiment with the new remedy soon found that the claims to curative properties were unfounded, but the strong commercial interests backing it have prolonged its life to the present time. Authorities on syphilis either say nothing about the preparation or mention it merely to condemn; but the proprietors of the nostrum continue to assert that it is not only practically a specific in syphilis, but now recommend it for various derangements of the blood and all sorts of skin diseases.

This being the case, what shall the wise physician do? Shall he blindly follow an authority of a past generation or shall he recognize that the claims of an interested manufacturer ought not to weigh against the consensus of his present-day confrères who have given the treatment of syphilis their special attention? The exploitation of such a preparation is deserving of strong censure. By such methods the firm places itself on the same plane as those nostrum venders, who advertise certain antiseptic sprays and gargles as cures for epidemic meningitis and diphtheria and thereby deprive credulous victims of the curative antitoxin treatment. Succus alterans is not a new remedy on trial for its possibilities of improvement in therapeutics; it is an old mixture which has been tried and found wanting.

The Physician and Nostrums

Dr. William C. Herman, Cincinnati, in a paper with the above caption read before the Cincinnati Academy of Medicine,[1] handled nostrums, both of the "patent medicine" and "ethical proprietary" types, without gloves. Dr. Herman has had some years' experience as a pharmacist, and is able to look at the nostrum evil from the viewpoint of both physician and druggist. After defining the term and showing the difference between the true "patent medicine" nostrum—somewhat of a rarity—and the proprietary nostrum, Herman refers to the nostrum proprietor and asks: "Who is he and what are his qualifications? He frequently is a doctor who has not been successful in his practce, a drug clerk who notes how easy the money came for the other fellow, for, as Colonel Sellers said years ago, 'there's millions in it.' He may be an advertising agent, a lawyer or a combination of the above. . . . What are his qualifications? He must have a maximum of gall, a minimum of conscience, a genius at writing deceptive advertisements . . . and many doctors to prescribe and advertise his nostrums."

Referring to that large class of remedies which, while never advertised direct to the laity, are, nevertheless, used and purchased by the general public because physicians prescribe them in "original packages," he says: "The general public never hear of them through the public press. All their publicity is secured through the medical press, by means of the manufacturer's literature, sometimes gotten out in the shape of a medical journal and through samples to doctors. For one physician capable of prescribing the precise medicinal agents needed by each individual patient, there are at least five who prescribe these proprietaries."

The laws of various states make it legally impossible for a layman to purchase certain poisonous and habit-forming drugs except on a physician's prescription; the nostrum trade, however, leaves a loophole for those who want these drugs. Says Dr. Herman: "You can not buy codein from the average druggist, but he will sell you an ounce box of antikamnia and codein tablets or antikamnia and heroin if you prefer. Neither can you buy chloral, but you can buy somnos and bromidia by the pint if you have plenty of money. . . . From one party who bought a pint bottle of somnos every week, I inquired how he became acquainted with it; he promptly answered, his doctor prescribed a small bottle, but it was too expensive that way, so he buys it by the pint now and he gets the original bottle."

Dr. Herman suggests that physicians study the U. S. Pharmacopeia and the National Formulary and "get acquainted with some real medicine and give up this canned or ready-to-wear medicine."

1. Kentucky Med. Jour., May 1. 1909.

Correspondence

University Theses in the Library of the College of Physicians

To the Editor:—I notice that on page 1932 of your issue of June 12, certain desiderata in British libraries are mentioned and in connection with this the statement is made that in many, if not all of our American libraries, complete sets of university dissertations and degree theses are wanting.

I beg to say that so far as the library of the College of Physicians is concerned, we have a complete series of the "Thèses de Paris" from 1880 up to the present time, and that we receive all the dissertations from twenty-eight European universities and one South American presented for degrees.

Our library is perhaps richer than any other in this country (with the exception, of course, of the Surgeon-General's in Washington) in such theses, and in complete files of many of not only our ordinary, but rarer medical journals, of which we take over 600.

I would not have troubled you with this note but for the fact that the members of the profession at large, I am sure, are not aware of the extraordinary character and value of the library of the College of Physicians, one of the first rank in the world.

W. W. KEEN, Philadelphia.

A Disclaimer Concerning Proprietaries

To the Editor:—My attention has been called to the fact that a concern known as the "A. M. C." is advertising a number of preparations said to possess medicinal properties, one of which is called "Expectorant (Hare)"; another, "Tonic Comp. (Hare)." I am also told that traveling salesmen employed by this concern are representing that I am responsible for these formulas and that I have a financial interest in them. Please state for the benefit of your readers and for my protection that such a use of my name is without any justification whatever. I never heard of the "A. M. C.," whatever that may mean, before to-day, nor do I know what its compounds contain. It is hardly necessary for me to add that all statements made by any one to the effect that I have any interest in any pharmaceutical or chemical preparation are absolutely untrue.

H. A. HARE, Philadelphia.

The Public Service

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ended June 19, 1909.

Russell, A. C. H., medical inspector, transferred to the retired list from June 30, 1909.

Wieber, F. W. F., surgeon, detached from command of the Naval Hospital, Canacao, P. I., and ordered home to wait orders, with three months' delay en route.

Hathaway, G. S., P. A. surgeon, ordered to the Navy Yard, Mare Island, Cal.

Irvine, W. L., acting asst.-surgeon, commissioned acting assistant surgeon, with rank of lieutenant, junior grade, from June 9, 1909.

Stitt, E. R., surgeon, detached from the Naval Medical School, Washington, D. C., and ordered to command the Naval Hospital, Canacao, P. I.

Minter, J. M., asst.-surgeon, discharged from treatment at the Naval Medical School Hospital, Washington, D. C., and granted sick leave for one month.

Army Changes

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ended June 19, 1909.

Pillsbury, H. C., 1st lieut., granted leave of absence for 2 months when relieved from duty in the Philippines Division.

Jones, H. W., 1st lieut., ordered to Washington, D. C., for temporary duty at the Walter Reed Army General Hospital.

Van Poole, G. N., capt., relieved from duty at Fort Slocum, N. Y.; will proceed at the expiration of his present leave of absence to Fort Sheridan, Ill., for duty.

Banister, W. B., major, ordered from San Francisco to Fort Snelling, Minn., for duty as surgeon and as acting chief surgeon, Department of Dakota.

Bispham, W. N., major, granted leave of absence for 14 days.

Reynolds, F. P., major, relieved from duty at Fort Snelling, Minn.; will proceed to Fort Monroe, Va., for duty.

Snyder, C. R., capt., granted leave of absence for 15 days.

McAndrew, P. H., capt., leave extended 10 days.

Johnson, R. W., major, retired from active service June 16, 1909.

Truby, A. E., major, ordered to command field hospital at camp near San Francisco.

Fauntleroy, P. C., major, ordered to command field hospital at camp, Sparta, Wis.

Reynolds, F. P., major, ordered to command field hospital at camp, Antietam, Md.

McLellan, G. H. M. R. C., ordered from Fort Crook, Neb., to Fort Omaha, for temporary duty.

Austin, T. C., M. R. C., ordered to active duty; will proceed to Jackson Barracks, La., for duty.

Conzelmann, F. J., M. R. C., granted leave of absence for 10 days.

Snow, C. G., M. R. C., ordered to duty with troops en route and at Sparta, Wis.

Miner, Donald, M. R. C., honorably discharged from the service of the United States, his services being no longer required.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended June 16, 1909:

Eager, J. M., asst. surgeon-general, relieved from duty at the bureau in charge of the division of sanitary reports and statistics, to take effect June 23, 1909, and directed to proceed to Portland, Me., and assume command of the Portland Quarantine Station.

Stoner, George W., surgeon, reassigned to duty as chief medical officer at Ellis Island, N. Y., to date from March 8, 1909.

Kalloch, P. C., surgeon, on arrival of Surgeon J. M. Eager, relieved from command of the Portland, Me., Quarantine Station.

Brooks, S. D., surgeon, granted 1 month's leave of absence from July 1, 1909.

McIntosh, W. P., surgeon, detailed as member of board of medical officers convened under bureau order of June 5, 1909.

Geddings, H. D., surgeon, detailed to attend the meeting of the International Commission for the revision of the international classification of diseases and causes of death to be held in Paris, France, July 1-3, 1909.

Young, G. B., surgeon, reassigned to duty in command of the Marine Hospital at Chicago, to date from March 24, 1909.

Rosenau, M. J., surgeon, granted 1 month's leave of absence from June 8, 1909, on account of sickness.

Clark, Taliaferro, P. A. surgeon, granted 7 days' leave of absence from June 11, 1909, under paragraph 191, Service Regulations.

McMullen, John, P. A. surgeon, relieved as member of board of medical officers convened under bureau order of June 5, 1909.

Moore, Dunlop, P. A. surgeon, leave granted May 1, 1909, for 3 months from June 3, 1909, amended to read 3 months from June 3, 1909, on account of sickness.

Goldberger, Joseph, P. A. surgeon, directed to proceed to Philadelphia, on special temporary duty.

Trask, J. W., P. A. surgeon, detailed as asst. surgeon-general in charge of the division of sanitary reports and statistics, to take effect June 24, 1909.

Campbell, P. M., acting asst.-surgeon, granted 30 days' leave of absence from June 10, 1909.

Hunter, S. B., acting asst.-surgeon, leave granted May 19, 1909, for 4 days from May 18, 1909, amended to read 14 days from May 18, 1909.

Lawhorn, C. C., acting asst.-surgeon, granted 15 days' leave of absence from June 11, 1909.

Lowthian, Elvin, acting asst.-surgeon, granted 3 days' leave of absence from June 9, 1909, under paragraph 210, Service Regulations.

Miranda, R. U. L., acting asst.-surgeon, leave granted May 15, 1909, for 4 months from June 1, 1909, amended to read 4 months from June 8, 1909.

Porter, Joseph Y., Jr., acting asst.-surgeon, granted 30 days' leave of absence from July 1, 1909.

Rea, Robert H., acting asst.-surgeon, granted 2 days' leave of absence from June 16, 1909.

Rodman, John C., acting asst.-surgeon, leave granted June 3, 1909, for 7 days from June 8, 1909, revoked.

Schwartz, Louis, acting asst.-surgeon, granted 28 days' leave of absence from July 12, 1909.

Stoddard, C. S., acting asst.-surgeon, granted 30 days' leave of absence from June 15, 1909.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public-Health and Marine-Hospital Service, during the week ended June 18, 1909:

SMALLPOX—UNITED STATES

California: Sacramento, May 22-29, 1 case.
Delaware: Millboro, May 6-June 10, 2 cases.
Florida: Pensacola, May 1-31, 1 death.
Georgia: Macon, May 31-June 6, 3 cases.
Indiana: Fort Wayne, May 28-June 5, 8 cases; South Bend, 1 case.
Kansas: Kansas City, May 28-June 5, 6 cases.
Kentucky: Lexington, May 29-June 5, 1 case; Newport, May 30-June 6, 1 case; Paducah, May 23-30, 1 case.
Louisiana: Hammond, May 15-June 5, 1 case.
Michigan: Grand Rapids, May 29-June 5, 1 case.
Minnesota: Duluth, May 28-June 4, 2 cases.
Missouri: Kansas City, May 28-June 4, 1 case.
Montana: Butte, May 26-June 3, 7 cases.
New Jersey: Hoboken, May 28-June 5, 1 case.
Pennsylvania: Bullis Mills, April 29-June 14, 9 cases; Harmony, May 13-June 14, 1 case.
Ohio: Cincinnati, May 27-June 4, 5 cases; Geneva, April 20-June 10, 7 cases; Plain City, March 1-June 10, 74 cases.
Texas: San Antonio, May 28-June 5, 11 cases.
Virginia: Richmond, May 28-June 5, 5 cases.
Washington: Tacoma, May 23-30, 3 cases; Walla Walla, May 28-June 5, 1 case.
West Virginia: Wheeling, May 28-June 5, 2 cases.
Wisconsin: La Crosse, May 28-June 5, 1 case; Marinette, May 22-29, 1 case; Milwaukee, 1 case.

SMALLPOX—FOREIGN

Canada; Halifax, May 24-31, 2 cases; Winnipeg, May 22-29, 2 cases.
Ceylon: Colombo, April 17-24, 3 cases.
China: Canton, April 17-May 1, 10 cases.
France: Paris, Jan. 16-23, 4 cases received; Feb. 20-27, 3 cases; (out of date); May 8-22, 4 cases.
Germany: Hamburg, May 16-23, 2 cases, Russian emigrants.
Great Britain: Bristol, May 15-22, 2 cases, 2 deaths.
India: Bombay, May 4-11, 24 deaths; Calcutta, April 24-May 1, 100 cases; Madras, May 1-7, 4 deaths; Rangoon, April 24-May 1, 8 deaths.
Indo-China: Saigon, April 10-May 1, 10 cases, 4 deaths.
Italy: May 16-23, 10 cases, 4 deaths; Turin, May 14-21, 1 case.
Java: Batavia, April 24-May 1, 4 cases.
Mexico: Guadalajara, May 20-27, 3 deaths; Mexico, April 17-May 8, 66 deaths; Monterey, May 23-30, 5 deaths.
Persia: Astrabad, April 13-24, epidemic.
Portugal: Lisbon, May 15-29, 12 cases.
Russia: Moscow, May 8-15, 29 cases, 6 deaths; Riga, May 15-29, 18 cases; St. Petersburg, April 24-May 8, 28 cases, 13 deaths; Warsaw, March 29-April 3, 5 deaths.
Servia: Belgrade, May 8-15, 4 cases, 4 deaths.
Spain: Barcelona, May 17-24, 6 deaths; Valencia, May 8-15, 10 cases, 1 death.
Switzerland: Geneva, May 8-15, 2 cases.
Turkey: Constantinople, May 8-16, 2 cases; Smyrna, April 29-May 6, 1 case.
Uruguay: Montevideo, March 1-31, 8 cases.

YELLOW FEVER

Barbados: May 15-29, 3 cases.
Brazil: Manaos May 8-15, 9 cases, 4 deaths; Para, May 8-22, 10 cases, 10 deaths.
Mexico: Merida, May 30-June 2, 2 cases.
Portugal: Lisbon, June 1-14, 2 cases, in quarantine, from steamship *Langfranc* from Para.
Venezuela: Maiquetia, May 24, 1 case, 1 death.

CHOLERA

India: Bombay, May 4-11, 10 deaths; Calcutta, April 24-May 1, 105 cases; Rangoon, 7 deaths.
Russia: St. Petersburg, May 20-27, 4 cases.

PLAGUE

Chile: Antofagasta, May 1, 5 cases; Arica, May 13, present; Iquique, May 8, 20 cases, 14 deaths.
China: Amoy, May 5, present; Am Phau, April 24-May 1, 5 cases, 3 deaths; Canton April 17-May 1, 80 cases, 55 deaths.
India: Bombay, May 4-11, 313 deaths; Calcutta, April 24-May 1, 127 deaths; Rangoon, 18 deaths.
Indo-China: Saigon, April 10-May 1, 9 cases, 9 deaths.
Peru: April 24-May 8, 57 cases, 32 deaths.
Venezuela: Caracas, June 3-9, 2 cases.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

SUPPRESSED OR DELAYED ERUPTION IN MEASLES

To the Editor:—Please publish a list of the best remedies to use in measles to bring out the eruption when it is suppressed or delayed. H. W. H., Kansas.

ANSWER.—There is probably no drug that will "bring out" the eruption in measles, and the administration of a drug for this purpose might obscure the symptoms by causing an eruption of its own. A simple warm bath undoubtedly hastens the appearance of the characteristic exanthem in measles. When the eruption is distinctly delayed or retrocedes, the brief use of the hot pack may be useful; this may be applied to the chest and abdomen and especially to the extremities. From the onset of the disease care should be taken to keep the skin active by warmth and bathing.

"QUININ INHALATIONS IN PERTUSSIS"

To the Editor:—In an article by Dr. H. C. Masland in THE JOURNAL, June 5, 1909, page 1832, a formula is given, the two notations of which do not seem to correspond. Kindly state which of the two is correct. H. M. L., Brooklyn.

ANSWER.—In fairness to Dr. Masland, it should be stated that the error was not his; in the manuscript the metric notation only was given, the apothecary's notation being added in THE JOURNAL office. Dr. Masland informs us, however, that the amount of liquid petrolatum, given by him originally as 25 c.c., should be 20 c.c. The corrected prescription, therefore, should read:

R	gm. or c.c.
Potassium hydroxid	20 | 6
Alcohol q. s. ad	200 |
Add 5 c.c. of the above to	
Liquid petrolatum	20 |
Oleic acid	10 |

CLEANLINESS IN REFRIGERATORS—KEEPING MILK COVERED

To the Editor:—1. Please explain the nature of the jelly-like substance that collects in the refrigerator pipes which carry off the water from melting ice.

2. Is it essential to keep milk in bottles sealed with paper caps while in the refrigerator? C. A. DEXTER, Columbus, Ga.

ANSWER.—1. The substance referred to consists of the impurities in the ice increased in bulk somewhat by the growth of fungi which may take place even at the low temperature of the ice-box.

2. Milk should be kept sealed. Although micro-organisms grow very slowly in it at the temperature of the refrigerator, such a growth does take place, and it is very desirable to prevent the entrance of outside germs as far as possible.

SANFELICE'S CANCER SERUM

To the Editor:—Please give any information concerning the serum of Prof. Sanfelice for cancer, which I find mentioned in brief in a pharmaceutical journal. J. L. MCALLISTER, Beaver, O.

ANSWER.—Sanfelice asserts, as a result of investigations extending over a number of years, that the cause of cancer is a micro-organism which belongs to the pathogenic saccharomycetes. These organisms when inoculated by themselves will only occasionally, but more frequently than the cells, give rise to malignant tumors. These results of Sanfelice are said to have been confirmed by Leopold and by Plimmer. Sanfelice found that malignant growths could be reproduced by cells that did not contain the organisms, but only their toxins. By inoculating the toxin in an attenuated form into a series of dogs he was able to obtain an antitoxic serum which caused the degeneration of cells of tumors produced by inoculation of malignant tumors or their toxin. He then proceeded to try the serum on dogs affected with spontaneous tumors. Eleven animals having malignant tumors in various parts of the body were inoculated and all recovered. This success encouraged him to try the effect of the serum on men Three cases gave very encouraging results. By the disaster at Messina his collections of serums and animals undergoing treatment or cured were destroyed. He is beginning to reconstruct what he has lost and to continue the work from which he hopes to obtain such desirable results. The following articles may be referred to:

Sanfelice, F.: Inoculability of Malignant Tumors, *Riforma medica*, 1904, xx, No. 36; abstr. in JOUR. A. M. A., No. 26, 1904, 1669.

Sanfelice, F.: Azione dei prodotti solubili dei blastomiceti in rapporto alla etiologia dei tumori maligni, *Riforma medica*, 1906, xxii, No. 28.

Piccinini, M. G.: Report of a lecture given by Prof. Sanfelice, May 13, 1909, at Bologna: La natura e la terapia del cancro, *Policlinico*, 1909, xvi, No. 21, p. 659.

Marriages

JOHN HENRY GRAHAM, M.D., to Miss Alice Kathryn Nickel, both of Butte, Mont., June 8.

GORDON WILSON, M.D., Baltimore, to Miss Elizabeth Preston Elliott, at Baltimore, June 5.

HARRY MELVILLE HALL, M.D., to Miss Jane S. Wheat, both of Wheeling, W. Va., May 20.

HENRY CULP EARNSHAW, M.D., to Miss Rachel B. Tatnall, both of Bryn Mawr, Pa., June 12.

F. H. CREAMER, M.D., Le Beau, S. D., to Miss Katherine Hobson of Des Moines, Iowa, June 2.

ALBERT G. WEBSTER, M.D., Dunleith, W. Va., to Miss Lillian M. Schoenborn at Baltimore, in March.

WILLIAM M. STOCKWELL, M.D., to Miss Clara S. Phelps, both of Suffield, Conn., at Hartford, June 8.

CHARLES H. MCMILLAN, M.D., Bobbin, Texas, to Miss Helen Isabell Matthews, at St. Louis, May 5.

T. K. WORTHINGTON, JR., M.D., Philadelphia, to Miss Mary Worsdale Spencer, at Baltimore, June 7.

EDWARD HENRY HERBERT OLD, M.D., U. S. Navy, to Miss Anne Eugenia Smith of Pittsburg, June 2.

ZENO BROWN, M.D., Greenville, N. C., to Miss Nannie Lou Waldrop of Hendersonville, N. C., June 16.

FREDERICK D. MCALLISTER, M.D., to Miss Gladys Anna Schrebler, both of Lawrence, Mass., June 8.

CHARLES EASTMOND, M.D., Brooklyn, N. Y., to Miss Bonnie Belle Dorland of Arlington, N. J., June 16.

WILLIAM RICHARD DEAR, M.D., M.R.C., U. S. Army, to Miss Greeta Marian Tibbitts of Washington, June 2.

WILLIAM D. HILLIARD, M.D., Asheville, N. C., to Mrs. H. M. Colby of New York City, at Charlotte, N. C., June 3.

THOMAS LEE MCCARRIER, M.D., Baltimore, to Miss Myrtle Edna Bream of Gettysburg, Pa., at Baltimore, June 5.

Deaths

Scott Lafayra Rountree, M.D. University of Pennsylvania, Philadelphia, 1860; a member of the Medical Association of the State of Alabama; a surgeon of Hardee's Brigade and later of the Ninth Tennessee Cavalry and Eighth Alabama Cavalry in the Confederate service during the Civil War; a charter member and for ten years president of the Morgan County Medical Society; for eighteen years health officer of Morgan county; and founder of Hartsells, Ala., died at his home, June 8, aged 71.

Robert K. Tuthill, M.D. New York Medical College, New York City, 1859; a member of the American Medical Association; consulting surgeon to Vassar Brothers' Hospital, Poughkeepsie; surgeon of U. S. Volunteers during the Civil War; assistant surgeon of the Twentieth New York Volunteer Infantry and later surgeon in chief of the First Division, Twelfth Army Corps Volunteer Infantry during the Civil War; at one time president of the Medical Society of Dutchess county; died at his home in Poughkeepsie, June 9, from pneumonia, aged 73.

John Fletcher Reger (thirty-five years of practice, W. Va.); U. S. Pension Examining Surgeon; a member of the staff of Reynold's Memorial Hospital, Moundsville, W. Va.; a member of the National Association of Railway Surgeons; American Academy of Railway Surgeons, and Baltimore and Ohio Association of Railway Surgeons; local surgeon of the Baltimore and Ohio Railroad; died at his home in Littleton, W. Va., May 10, from neurasthenia, aged 72.

Joseph Spiegelhalter, M.D. Humboldt Medical College, St. Louis, 1862; a member of the American Medical Association, American Association for the Advancement of Science, and American Public Health Association; a veteran of the Civil War; health officer of St. Louis in 1865; coroner of St. Louis county, from 1866 to 1870; a member of the board of health of St. Louis from 1876 to 1887; died at his home in that city, June 7, aged 74.

Walter Franklin Fundenberg, M.D. University of Maryland, Baltimore, 1850; surgeon of the One Hundred and Thirty-sixth and One Hundred and Seventy-sixth Pennsylvania Volunteer Infantry during the Civil War; said to have been the oldest dentist of Pittsburg; died in Atlantic City, Nov. 22, 1908, aged 80.

Joseph Everett Kunkler, M.D. College of Medicine and Surgery (Physiomedical), Chicago, 1896; a member of the Missouri State Medical Association; for one year professor of anatomy in his alma mater and for two years health commissioner of Bloomington, Ill.; died at his home in Clinton, Mo., June 6, aged 42.

Harry Norvill Curtis, M.D. New York Homeopathic Medical College, New York City, 1881; of Marietta, Ohio; a member of the Ohio State Medical Association; and several times a member of the city council of Marietta; died suddenly at the Marietta Country Club, June 7, from cerebral hemorrhage, aged 56.

John Rutherford Ballah, M.D. University of Michigan Homeopathic College, Ann Arbor, 1900; who had done special work in bacteriology and the preparation of antitoxin; and whose last post of duty was in the Government laboratory at Regina, Sask.; died in that city May 31, from pneumonia, aged 32.

Raymond Kantner Weber, M.D. Jefferson Medical College, Philadelphia, 1905; a member of the Medical Society of the State of Pennsylvania and Reading Medical Association; a member of the staff of Reading Hospital; died suddenly June 3, from heart disease, at his home in Reading, aged 26.

George Sparks, M.D. University of Texas, Galveston, 1894; of Sweetwater, Texas; health officer of Nolan county; and chief surgeon of the Texas division of the K. C. M. and O. Railway; died in San Angelo, Texas, Aug. 2, 1908, from tuberculous laryngitis, aged 39.

Alexander Sanford Clarke, M.D. College of Physicians and Surgeons, New York City, 1876; Academy of Medicine, Nancy, France, 1887; a member of the New York Academy of Medicine; died at his home in Paris, France, May 26, from arteriosclerosis, aged 66.

Clinton Thompson Brandow, M.D. Syracuse (N. Y.) University, 1898; a member of the American Medical Association; at some time health officer of Locke, N. Y., and a trustee of the village of Moravia; died at his home in that village, June 1, aged 31.

John Scott Williams, M.D. Medical Department of the University of Iowa, Keokuk, 1865; Washington University Medical College, St. Louis, 1871; a member of the American Medical Association; died at his home in Jerseyville, Ill., June 4, from cerebral hemorrhage, aged 69.

Dwight Calkins, M.D. Bellevue Hospital Medical College, New York City, 1897; of Battle Creek, Mich.; died at the home of his parents in Allegan, Mich., June 10, from dilatation of the heart, following an automobile accident, aged 36.

Edmond Montgomery Moffett, M.D. New York University, New York City, 1882; of New York City; some-time surgeon of the Seventy-first Infantry, N. G. N. Y.;; died at his home in West New York, N. J., June 11, aged 60.

Emery James Dunn, M.D. New York University, New York City, 1883; formerly of Schroon Lake, N. Y., and supervisor of the town from 1902 to 1907; died at his home in Dolgeville, June 8, from rheumatism, aged 56.

David T. Douglass, M.D., Rush Medical College, Chicago, 1871; of Colfax, Ill.; a member of the American Medical Association; died at the home of his brother in Morristown, N. J., February 5, from paralysis, aged 66.

Joseph Cobb Walker, M.D. University of Nashville, Tenn., 1900; a member of the Medical Association of the State of Alabama; died at his home in Birmingham, June 3, after an operation for appendicitis, aged 36.

Alfred Warren, M.D. Missouri Medical College, St. Louis, 1880; for many years a member of the local board of U. S. Pension Examining Surgeons; died suddenly at his home in Casey, Iowa, June 2, aged 65.

Clarence Eugene Gunther, M.D. Long Island College Hospital, Brooklyn, 1880; afterward a professor in his alma mater; died in his apartments in New York City, June 12, from heart disease, aged 48.

John Edward Snyder, M.D. Western Pennsylvania Medical College, Pittsburg, 1901; local surgeon to the Carnegie Steel Company; died at his home in Sharpsburg, Pa., June 9, from angina pectoris, aged 30.

Hugh Jones Hughes, M.D. National Medical College, Chicago, 1895; of Muskogee, Okla.; died in the Muskogee Hospital, June 6, from peritonitis, a few hours after an operation for appendicitis, aged 40.

Jeremiah Nelson Anderson, M.D. New York Homeopathic Medical College, New York City, 1864; of Toronto; died suddenly while making a call in that city, June 8, from cerebral hemorrhage, aged 68

William L. York, M.D. Medical College of Georgia, Augusta, 1868; a member of the Oklahoma State Medical Association; died at his home in Hobart, Okla., May 18, 1908, from cerebral hemorrhage, aged 59.

J. Fain Stephens, M.D. University of Tennessee, Nashville, 1878; was shot and instantly killed in an express car on the Tennessee Central Railroad at Boma, by an insane person, May 28, aged 52.

H. V. Westmoreland, M.D. Atlanta (Ga.) Medical College, 1869; of Greer, S. C.; a Confederate veteran; died in Jefferson Medical College Hospital, Philadelphia, June 4, from nephritis, aged 64.

Robert H. Brown, M.D. Rush Medical College, Chicago, 1869; a veteran and historiographer of the Civil War; died in his rooms in Wichita, Kan., June 8, from cerebral hemorrhage, aged 73.

William C. Mason, M.D. College of Physicians and Surgeons, Keokuk, 1865; a member of the Illinois State Medical Society; died at his home in Walnut, April 3, from pneumonia, aged 68.

Theodore Freylinghuysen Kerr, M.D. College of Physicians and Surgeons, New York City, 1874, of Cooperstown, N. D.; died in New York City in May, 1909, from erysipelas, aged 64.

James Harvey Jones, M.D. Medical College of Ohio, Cincinnati, 1854; of LaCygne, Kan.; died at the home of his daughter near that place, May 29, from nephritis, aged 83.

John M. Conningham, M.D. University of Tennessee, Nashville, 1888; a member of the Tennessee State Medical Association; died at his home in Shelbyville, June 5, aged 59.

Robert B. White (examination, Ohio, 1897); for nearly half a century a practitioner of Blackford county, Ind.; died at his home in Montpelier, June 1, aged 78.

James Mattingly Moore, M.D. Tulane University, New Orleans, 1859; died at his home in Waterproof, La., April 2, from heart disease and senility, aged 80.

William T. Griffin, M.D. Niagara University, Buffalo, 1898; of Buffalo; died in the Emergency Hospital in that city, June 5, from cerebral hemorrhage, aged 32.

William Albert Rockafellow, M.D. Medical College of Ohio, Cincinnati, 1879; of Laughery, Ind.; died in Hartford, Ind., April 27, from typhoid fever, aged 53.

George R. Repp, M.D. Central College of Physicians and Surgeons, Indianapolis, 1890; of Tipton, Ind.; died suddenly in his office in that city, June 4.

Daniel H. Dornsife, M.D. Jefferson Medical College, Philadelphia, 1877; died at his home in Tunkhannock, Pa., April 25, from paralysis, aged 69.

Frank S. Burroughs, M.D. Hahnemann Medical College, Chicago, 1884; died at his home in Menasha, Wis., June 3, from locomotor ataxia, aged 55.

Ashley R. McCollough, M.D. Hahnemann Medical College of the Pacific, San Francisco, 1897; died at his home in Williamsport, Ind., June 6, aged 51.

William M. Young, M.D. Rush Medical College, Chicago, 1853; died at his home in Galesville, Wis., June 7, from cerebral hemorrhage, aged 80.

Joshua H. Wilson, M.D. Meharry Medical College, Nashville, Tenn., 1905; died at his home in New Bern, N. C., June 5, from appendicitis, aged 30.

Thomas Worcester Dike, M.D. Boston University School of Medicine, 1890; formerly of Bath, Maine; died in Westboro, Mass., April 17, aged 43.

Gettus E. Starner, M.D. Eclectic Medical Institute, Cincinnati, 1885; died at his home in Dunkirk, Ohio, June 1, from tuberculosis aged 52.

Henry J. Boughton, M.D. New York University, New York City, 1859; died at his home in San Francisco, Oct. 20, 1908, from heart disease.

John Monlezun, M.D. Tulane University, New Orleans, 1896; died at his home in New Orleans, June 4, from tuberculosis, aged 36.

Richard D. Evans, M.D. University of Maryland, Baltimore, 1886; of Butte, Mont.; died in a hospital in that city, June 8, aged 53.

Edward W. Trowbridge, M.D. University of Buffalo, 1879; died at his home in Watertown, N. Y., June 9, aged 60.

Lovina A. Thorpe, M.D. Cleveland Homeopathic Medical College, 1883; died at her home in Cleveland, April 23.

George Storrs Fife, M.D. surgeon in the Civil War; died at his home in San Francisco, Dec. 5, 1908, aged 72.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal

June 12

1 *Diet as a Prophylactic and Therapeutic. H. W. Wiley, Washington, D. C.
2 Sodium, Lithium, Calcium and Magnesium, and their Action in the Treatment of Disease. J. V. Shoemaker, Philadelphia.
3 Treatment of Tuberculosis by Administration of Mercury. B. L. Wright, U. S. Navy.
4 Increased Urinary Calcium Excretion in Tuberculosis. A. C. Croftan, Chicago.
5 Acute Gastric Dilatation as a Postoperative Complication. J. O. Polak, Brooklyn.
6 Treatment of Pneumonia, with Special Reference to the Use of Quinin. J. A. Keown, Lynn, Mass.
7 Ureteral Calculi. J. P. Erdmann, New York.
8 Hysterosalpingostomy. R. C. Turck, Jacksonville, Fla.
9 Pancreatitis, Chronic and Acute, From Obstruction of the Duct by a Calculus at the Ampulla of Vater. O. W. H. Mitchell, Columbia, Mo.
10 Symptoms and Diagnosis of So Called Chronic Rheumatism. C. Ogilvy, New York.

1. Diet.—Wiley calls attention to the increasing belief among physicians that diet is an important factor, both in the production and in the cure of disease. Accepting the modern theory of specific infection in the cause of disease, we should, he asserts, also accept its attendant theories, which he states briefly as follows: A perfectly healthy, well-nourished organ doesn't easily become infected with any disease germ. This being so, it is evident that food, or diet, must play an important part in the prevention of disease, because the normal condition of the body and the maximum power of self-protection is directly dependent on the character and amount of the diet. As to what is the best diet, Wiley states, as a general proposition, that the ordinary normal diet of man selected by the necessities of nutrition and by taste, is considered, all in all, the best. With regard to the theory advanced by some that the diet of the average man contains too large a percentage of protein, Wiley is not willing to agree to the extreme claims made by those who advance it. While he will admit that the amount of protein consumed may be greater than is desirable, he would not go to the extreme of supposing that it should be diminished by one-half or two-thirds or even more. On the subject of mastication he would also take a conservative stand. While admitting both the desirability of thorough mastication and that the average individual does not masticate his food enough, yet he is of the opinion that to carry mastication to excess might result first in diminishing the actual quantity of food necessary, and second, in interfering with the proper process of digestion. He ventures the question whether it may not be possible that excessive mastication, that is, converting the meal hour into a mere mechanical exercise, may not in the end threaten the human family with grave dangers of insufficient nutrition.

In discussing the therapeutic value of food, he touches on the subject of adulteration and sophistication. He asserts that while the healthy individual may use considerable quantities of milk, for instance, containing formaldehyd, boric acid or sodium benzoate, or other preservatives and receive no apparent injury, the case is entirely different with the invalid. The first requisite which we could make for foods for invalids is that they should be pure. The next most important thing is to find a pure food which the invalid can digest. In closing his article, Wiley calls attention to the fact that the science of nutrition is unfortunately not very extensively included in the curricula of our medical schools. In his opinion the time will come when we shall see the professorship of dietetics in medical schools advanced to the same rank as that of medicine. He goes even further and states that "the practice of medicine in the future will be largely a practice of dietetics."

Medical Record, New York

June 12

11 *Inadequacy of the Sanatorium Treatment of Tuberculosis. M. Fishberg, New York.
12 *Treatment of Syphilis and Parasyphilis of the Nervous System. D'O. Hecht, Chicago.
13 Concealed Appendix. A. H. Goelet, New York.
14 *Some Coroner's Cases. P. F. O'Hanlon, New York.

11. Sanatorium Treatment of Tuberculosis.—Fishberg deplores the fact that the average consumptive and often his medical adviser look on the sanatorium as the only place where he may be cured of his disease. Those patients who for some reason can not gain admission to sanatoria consider themselves doomed, lose courage, and often fail to make any attempt to submit to treatment at home. The available sanatoria are overcrowded and patients have to wait for months before accommodations can be found for them in existing institutions. Considering the large number of living consumptives and the enormous sum of money necessary to invest for the equipment and maintenance of sanatoria, it is hardly to be hoped that in the near future the number of beds will be increased to such an extent as to accommodate all those who are in need of institutional treatment.

It is well known that many more consumptives are being cured at home than in sanatoria. Autopsy findings show that about 70 per cent. of humanity have had tuberculosis some time during their lives. It is also established that the majority of these have been cured of the disease. Even conceding that the well to-do, who only rarely come to autopsy, would not show such a large proportion of tuberculosis, it argues in favor of the curability of consumption among the poor in their homes, in their usual *milieu*.

The sanatoria only admit incipient cases, which display no constitutional symptoms, such as fever, rapid loss of weight, etc. These are just the cases that are, under proper care, getting along well at home, at a much lower cost to the patient and to the community. Acute cases, as well as active cases with fever, emaciation, anorexia, albuminuria, etc., are not doing well in either place. The lower mortality rates in sanatoria is in a measure due to the fact that all unfavorable cases are persuaded to leave for home.

The ultimate results of sanatorium treatment are not as good as some authors lead us to believe. The German sanatoria show results that about 40 per cent. of all the cases are able to work and earn at least one-third of the standard wage at the expiration of five years after discharge. Considering that the average duration of life of the consumptive is about seven years and that the sanatoria admit only incipient cases, it is a question whether 40 per cent. of a given number of incipient cases treated at home would not show similar results. According to Hammer and Croissant the results obtained in the treatment of consumptives in dispensaries are about the same, and from the standpoint of the duration of the favorable results, even better. The excellent results obtained by Trudeau and reported by Brown are not conclusive. They by no means prove that the mortality of the sanatorium patients is lower than that of the patients who are cared for at home. It is not fair to compare the death rates of consumptives with those of the general population when testing one method of treatment with another. The only conclusive method of comparing results of treatment is to elicit the mortality of sanatorium patients as compared with results obtained in home treatment, but such a study has not yet been made on a large scale. Economically sanatoria are expensive. The initial outlay for building and equipment, which amounts to about $1,000 per bed, and maintenance, which amounts to about one dollar per day per patient, precludes at present the hope of building and maintaining a sufficient number of sanatoria to provide for all consumptives in any country. The fact that there are indications that the results obtained in dispensaries are not below those obtained in institutions, and at a much lower rate of expense, urges that we must turn our attention to the home treatment of tuberculosis.

The prophylactic results of sanatoria are of negligible value, considering that they admit the incipients and refuse the most dangerous—the advanced cases.

12. Syphilis and Parasyphilis of the Nervous System.—Hecht concludes his résumé of this subject as follows:

(1) Syphilis and parasyphilis of the nervous system continue to stand in direct and indirect causal relation to primary syphilis, although their nosologic position is very likely to undergo revision if the Schaudinn discovery and serodiagnostic values of to-day stand the test of time and fur-

ther development; (2) the therapeutic position, it is hoped, will also share in this signal advance, but in the expectant interval it is well to insist that neither a routine nor a haphazard administration of antispecifics is commendable; (3) treatment to be intelligent must meet the requirements of each case with due regard for the many collateral, chiefly supportive measures; (4) antispecifics, when indicated in these conditions, mean mercury and iodids; (5) in the vast majority of the cases occurring in neurologic practice, mercury by inunction is the method of choice; (6) the Fränkel exercise treatment for the ataxia of tabes loses none of its efficiency if a departure is taken from the original complex plan to a simpler one.

14. **Some Coroner's Cases.**—O'Hanlon describes several unusual cases which came under his observation as coroner's physician. These were multiple fractures of the base of the skull without outward evidences of a severe injury, the carotid artery pierced by the rib of an umbrella, removal of the entire placenta by curetting, with a five months' fetus left in the utero, and death from the kick of a horse.

Lancet-Clinic, Cincinnati

June 5

15 Extrauterine Pregnancy, with Report of Cases. J. W. Hamilton, Mt. Vernon, Ill.
16 Psychoprophylaxis in Childhood. T. A. Williams, Washington, D. C.

Medical Fortnightly, St. Louis

June 10

17 Some Constitutional Diseases. R. B. H. Gradwohl, St. Louis.
18 Diagnosis of Diseases of the Sigmoid Flexure. E. Walker, Evansville, Ind.
19 Paresthesia. J. V. Shoemaker, Philadelphia.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London

May 29

1 After-Treatment of an Uncomplicated Case of Extraction of Senile Cataract. A. Lawson.
2 Prostatectomy. J. H. Nicoll.
3 *Autoinoculation and Reinfection of Syphilis. J. Hutchinson.
4 Simple Method of Serodiagnosis of Syphilis. A. Fleming.
5 Serodiagnosis of Syphilis. J. M'Intosh.
6 The Biologic Syphilis-Reaction, Its Significance and Method of Application. C. H. Browning and I. McKenzie.
7 Serodiagnosis of Syphilis. H. W. Bayly.
8 Tracheotomy Cases in which there were Long Periods of Inability to Dispense with the Tube. D. Forbes and R. M. Courtauld.
9 Smallpox As It Affects London: Retrospect and Forecast. A. F. Cameron.

3. **Reinfection in Syphilis.**—Hutchinson gives a number of instances in which contrary to the general experience a primary chancre showed itself to be autoinoculable and a number of other cases in which reinfection occurred in patients who had been cured of a first or even second attack of syphilis. The period at which reinfection may take place is as short as eighteen months and its length appears to be inversely proportional to the energy and success of the treatment of the former infection. The second infection may be lighter or more severe than the first.

British Medical Journal, London

May 29

10 Volvulus. H. F. Waterhouse.
11 *The Immediate and Ultimate Results of Gastroenterostomy for Gastric and Duodenal Ulcer. L. A. Bidwell.
12 Treatment of Acute Appendicitis. R. C. Bailey.
13 Resection of the Cecum for Cancer of the Ileocecal Valve. H. Cripps.
14 Perforated Duodenal Ulcer Treated by Suture and Gastroenterostomy. W. P. Noall.
15 Perforated Gastric and Duodenal Ulcers Treated Successfully Without Suture of the Perforation. E. M. Corner and W. Bristow.
16 Traumatic Rupture of the Sigmoid Colon: Operation: Recovery. W. Sheen.
17 Treatment of Severe Cases of Chronic Colitis. P. L. Mummery.

11. **Gastroenterostomy.**—Bidwell reports a mortality of nearly 5 per cent. in gastroenterostomy operations for ulcer and he states that the estimate of 1 per cent. mortality, given by some authors is entirely too favorable. His experience makes him hesitate to assert that the risk of a gastroenterostomy is practically *nil*. This mortality should be contrasted with that under medical treatment which he reckons at 10 per cent. The immediate results are very good but unless the pylorus is constricted the stomach contents will eventually find their way through it again and the gastroenterostomy opening will close. By investigation of the ultimate results Bidwell found that about 56 per cent. of the patients were absolutely cured and another 26 per cent. were in almost perfect health. He regards the operation as indicated in every case of chronic gastric ulcer which has resisted medical treatment or has recurred after it. The presence of dilatation is an absolute indication for gastroenterostomy. The operation is also indicated in every case of duodenal ulcer as soon as it can be diagnosed, as practically no case of duodenal ulcer is permanently cured by medical means. In acute gastric ulcer the indications for operation are repeated severe hemorrhages which are threatening the patient's life; and, secondly, symptoms of acute pain and shock, suggesting that the ulcer is spreading toward the visceral peritoneum, and that perforation is imminent. Bidwell believes that an ulcer in any part of the stomach or duodenum can be cured by gastroenterostomy; but if the pylorus is not stenosed it must be occluded at the same time, otherwise the results are not likely to be permanent.

Journal of Obstetrics and Gynecology of the British Empire, London

May

18 Reports of the Rotunda Hospital. E. H. Tweedy and R. J. Rowlette.
19 Treatment of Labor in Contracted Pelvis. F. Schauta.
20 Cesarean Section in an Aged Primipara. T. B. Grimsdale.
21 *Ovarian Transplantation. G. A. Casalis.

21. **Ovarian Transplantation.**—Casalis reports a case in which he transplanted in 1905 the sound portion of the left ovary in a woman aged 26, on whom he operated for adherent retroverted uterus with double tubo-ovarian disease (gonorrheal infection). She has menstruated more or less normally since, but during the last year crises have preceded each period, of a somewhat alarming character: she suffers violent headache, intense abdominal pains, three or four severe rigors, cyanosis of the face and extremities, becomes almost pulseless, vomits incessantly and frequently passes one or two offensive motions. Then a reaction sets in with perspiration, flushed face, full and bounding pulse, and the menses appear. Casalis regards it as an early surgical menopause in a woman now just 40. The ovary is undergoing retrogressive changes. It is interesting that the ovarian transplantation was successful, even if only momentarily so. The ideal would be to perform with transplantation an arterial anastomosis, but that appears difficult if not impossible.

Presse Médicale, Paris

May 15, XVII, No. 39, pp. 345-352

22 Escape of Cerebrospinal Fluid Through the Nasal Cavities. (Ecoulement du liquide céphalo-rachidien par les fosses nasales.) A. Vigouroux.

May 19, No. 40, pp. 353-368

23 *Gonococcus Septicemia and Vaccine Treatment. Dieulafoy.
24 *Test for Blood in Urine. (Procédé simple pour la recherche du sang dans les urines.) Albarran and Heitz-Boyer.

May 22, No. 41, pp. 369-376

25 Simplified Technic for Extirpation of Epithelioma of Pharyngeal Isthmus. Jacques.

23. **Gonococcus Septicemia.**—Dieulafoy reiterates that gonorrhea is not merely a local affection but at any moment it may become a septicemia which may prove rapidly fatal, or it may induce acute and chronic joint affections, ulcerative and proliferating endocarditis, pericarditis, bronchopneumonia, meningitis, infarcts in the lungs, peritonitis, pleurisy, phlebitis, etc. The urethral process may have long healed or it may vanish as the other symptoms appear. Barbiani has reported a case in which gonococci were cultivated from the blood in what was apparently a case of acute articular rheumatism. Profuse sweats seem to be characteristic of gonococcus septicemia; other symptoms may suggest typhoid. In a recent case Dieulafoy reports a typhoid syndrome, fatal in one week, which proved to be solely a gonococcus septicemia.

In two other cases described in detail the patients were convalescing from gonococcus septicemia when typhoid fever developed. They had been treated with gonococcus vaccine and the results have impressed him with the great value of the opsonin vaccination technic.

24. **Test for Blood in Urine.**—Albarran insists on the importance of a simple and reliable bedside test for blood in the urine especially in cases in which the urine does not contain blood when the patient is in repose, but it becomes blood-stained after a walk or other exercise, showing irritation from a stone or other cause. The Meyer test has proved very reliable for this purpose. The reagent is an alkaline solution of phenolphthalein: 2 gm. of phenolphthalein and 20 gm. of potash are dissolved in 100 c.c. of distilled water, to which are added 10 gm. of pulverized zinc. The mixture is boiled for four minutes, shaking the vessel; the fluid, red at first, rapidly loses its tint. As soon as the boiling fluid is decolorized, it is filtered; the reagent thus prepared will keep for months. The test is made with 2 c.c. of urine mixed with 1 c.c. of the reagent, well shaken; then three or four drops of ordinary hydrogen dioxid solution are added. In the presence of blood in the urine the fluid turns bright red, the rapidity of the change and intensity of the tint proportionate to the amount of blood present. The reaction occurs distinctly when there is at least 1 to 100,000 blood in the urine, sometimes when the microscope reveals only a few isolated blood corpuscles. The reaction is not influenced by the presence or absence of pus, albumin, pigments, sugar, uric acid or urates, acetone, indican, etc., nor by the ordinary drugs which the patient may have been taking.

Semaine Médicale, Paris

May 19, XXIX, No 20, pp 229-240

26 *Neuropathic Ileus with Stercoraceous Vomiting. M. Roch and de Seneclens

May 26, No 21, pp 241-252

27 Laryngostomy and Various Methods for Dilatation of the Larynx from Without A. Saignon and R Barlatier
28 *Comparative Hyperemia Test in Operating for Gangrene (L'épreuve de l'hyperémie comparée pour servir à la détermination du lieu d'amputation dans les gangrènes spontanées du pied) F Lejars

26. **Neuropathic Ileus.**—Roch did not feel justified in operating in the case of ileus described as the young woman was a notorious hysteric and there was no tympany or pain and an operation performed the year before for a similar syndrome had revealed that the viscera were normal. Pseudo strangulation of hysteric origin had been diagnosed from the stercoraceous vomiting by several physicians consulted. The patient died before there had been supposed to be any cause for alarm, and autopsy disclosed a loop of jejunum strangulated by a band from the peritoneum. The good general condition, occasional passage of a little stool, suppleness of the abdomen and absence of pain had disguised the organic trouble but he is convinced now that stercoraceous vomiting justifies intervention, if simulation can be excluded, even when the patient seems otherwise in good condition, and when the neuropathy is known to be the main cause of the trouble.

28. **Comparative Hyperemia as Test for Point to Amputate in Gangrene.**—After removal of a constricting band the blood rushes down into the limb and the zone of vitality is recognized as it is demarcated by the diffusion of the blood in the tissues The test has given good service in the twenty-two cases in which it has been applied to date. If the hyperemia is clearly defined and pronounced it may be possible to accept the findings as an indication that more of the limb may be saved.

Münchener medizinische Wochenschrift

May 11, LVI, No 19, pp. 953-1000

29 Obstetric Operations for Anomalies in Soft Parts (Ueber die geburtshilflichen Hilfsoperationen bei abnormer Enge und bei unvollkommener Erweiterung der Weichteile) J. Pfannenstiel
30 *Roentgen Ray Treatment in Gynecology Albers-Schonberg
31 Importance of Serodiagnosis of Syphilis in General Practice (Bedeutung der Wassermannschen Serodiagnose der Syphilis für die Praxis) C Kopp
32 The Blood Pressure, and Auscultation Method for its Determination (Ueber Blutdruck und dessen auskultatorische Bestimmungsmethode) Ebret
33 Bacteriologic Diagnosis of Typhoid Wiens
34 *Cholesterin Concrements and Their Importance in Inflammatory Gallstone Lesions. (Bedeutung des radiären Cholesterinstein für die entzündliche Gallensteinkrankheit.) A. Baemeister
35 Present Status of Treatment of Gonorrhea in France. (Gonorrhoetherapie in Frankreich) K F. Hoffmann
36 Influence on Gastric Secretion of Salt Solutions Introduced into the Intestine (Beeinflussung der Magensekretion nach Zuführen von Salzlösungen in den Darm) G v. Bencze
37 *Fatal Poisoning from Atoxyl (Ueber einen tödlich verlaufenen Fall von Atoxylvergiftung) H Schlecht.
38 *Sclerosis of Abdominal Vessels (Sklerose der Abdominalgefässe) Rossbach
39 Successful Treatment of Pulmonary Lesions with the Suction Mask (Behandlung der Lungenkrankheiten mit der Kuhnschen Saugmaske) J. H Greeff

30. **Roentgen Treatment in Gynecology.**—Albers-Schonberg read this article as his address at the recent congress of the German Roentgen Association. He states that Roentgen treatment is an important aid in various gynecologic affections for those who understand the technic of deep exposures. It is possible with them to put an end to menstruation, to cause the shriveling of myomas and cessation of hemorrhages caused by the myomas and the menses, the arrest of preclimacteric and postclimacteric hemorrhage and the relief of menstrual disturbances at any age, with or without sterilization He relates his experiences in these various lines, remarking that intramural myomas respond more readily to Roentgen treatment than the subserous and the pedunculated. Very large, old myomas already showing calcification resist the rays. He has never witnessed any by-effects during or in consequence of the exposures The symptoms of the premature menopause were slight, and the appearance of "hot flashes" announced that the desired result was being attained. Older patients are more amenable to Roentgen treatment than younger women.

34. **Cholesterin Stones and Inflammation of the Gall Bladder.**—Baemeister maintains that simple stagnation of the bile is liable to cause the cholesterin to crystallize out and build up a stone by radial formation. This occurs without inflammatory processes, but the stone once formed is liable to cause irritation and secondary inflammation and possibly compression, and, by occlusion of the neck of the gall bladder, induce stagnation of the secretion in the pancreas, with acute necrosis of the pancreas in consequence.

37. **Fatal Atoxyl Poisoning.**—The patient was a man of 29, robust and free from abuse of alcohol He was treated with mercury salicylate ten weeks after infection, after a three weeks inunction course. About 0.4 gm. (6 grains) in nine days were injected After a pause of six days a total of 2.4 gm (36 grains) of atoxyl was injected in the course of eight days in four injections. Symptoms of arsenic poisoning developed the next day, fatal in a few hours.

38 **Sclerosis of the Abdominal Vessels.**—Rossbach relates a case in which painful sensations for years in the abdomen sometimes increased to actual crises, but, although the left ventricle was much hypertrophied and the blood pressure high, the kidneys were intact and the capillaries free from sclerosis. The abdominal aorta, however, was in such an advanced stage of sclerosis that it was merely a rigid tube. In order to propel the blood through it, the heart had to do so much extra work that hypertrophy was inevitable. The pains in the abdomen corresponded to the clinical picture of "intermittent intestinal angiosclerotic dyspragia," "intermittent anemic dysperistalsis," "arteriosclerotic colic," and "abdominal angina."

Ugeskrift for Læger, Copenhagen

April 8, LXXI, No 14, pp 367-390

40 *Râles from Vibration of Trachea, etc. (Om "Synkningsrallelyd") Israel-Rosenthal

April 15, No 15, pp 391-416

41 Study of Some Life-Insurance Figures (Erfaringer angaaende Dødeligheden blandt Statsanstaltens Forsikrede, 1871-1905) G G Stage

April 29, No 17, pp 445-476

42 Three Cases of Subchronic "Uveo parotid Fever" (Om en Febris uveo parotidea subchronica lokaliseret til Glandula Parotis og Øjets Uvea og hyppigt kompliceret med Paresei af cerebriospinale Nervei) C F Heerfordt. Commenced in No 16

40. **Vibration Râles.**—Rosenthal calls attention to the importance of differentiating the sounds resembling râles caused by the vibration of the trachea, especially during swallowing, They may simulate the signs of an incipient tuberculous

apical process, but they are not limited to the phases of respiration and occur both during inspiration and expiration and in the pauses. The vibration râles can be controlled by laying the finger on the patient's larynx during auscultation and watching the thyroid prominence. If the patient "swallows a little air" or takes a sip of water, the true nature of the vibration râles becomes apparent. They can be further positively differentiated by having the patient open his mouth during auscultation—this prevents the vibrations. He discusses the mechanism and the characteristics of the sounds, comparing them with the sounds when a fluid is swallowed and when it is passed through the cardia (*Schluckgeräusche* and *Durchpressgerausch*).

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

Diet in Health and Disease. By Julius Friedenwald, M.D., Professor of Gastro-Enterology in the College of Physicians and Surgeons, Baltimore, and John Ruhräh, M.D., Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Cloth. Pp. 765. Edition 3. Price, $4 net. Philadelphia: W. B. Saunders Co., 1909.

Treatment of the Diseases of Children. By Charles Gilmore Kerley, Professor of the Diseases of Children in the New York Polyclinic Medical School and Hospital. Edition 2. Cloth. Pp. 629, with 78 illustrations. Price, $5. Philadelphia: W. B. Saunders Co., 1909.

Myomata of the Uterus. By Howard A. [illegible] Gynecology in the Johns Hopkins University, a[illegible] Associate Professor of Gynecology, Johns Hopki[illegible] Pp. 723, with illustrations. Price, $7.50. [illegible] Saunders Co., 1909.

Handbook of Diseases of the Rectum. By Louis J. Hirschman, M.D., Detroit, Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine. Cloth. Pp. 374, with 147 illustrations. Price, $4. St. Louis: C. V. Mosby Medical Book Co., 1909.

Essentials of Medical Chemistry, Organic and Inorganic. Prepared Especially for Students of Medicine. By Lawrence Wolff, M.D., Physician to the German Hospital, of Philadelphia. Edition 7. Revised by A. Ferree Witmer, Ph.G., M.D., Fellow of the College of Physicians, Philadelphia. Cloth. Pp. 225. Price, $1. Philadelphia: W. B. Saunders Co., 1908.

Dietetics for Nurses. By Julius Friedenwald, M.D., Professor of Gastro-Enterology in the College of Physicians and Surgeons, Baltimore, and John Ruräh, M.D., Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Edition 2. Cloth. Pp. 395. Price, $1.50. Philadelphia: W. B. Saunders Co., 1909.

American Pocket Medical Dictionary. Edited by W. A. Newman Dorland, A.M., M.D., Assistant Obstetrician to the Hospital of the University of Pennsylvania. Edition 6. Flexible leather. Pp. 598. Price, $1. Philadelphia: W. B. Saunders Co., 1909.

[illegible] Use of Massage and Early Movements in [illegible] and Other Common Surgical Injuries, [illegible] Consequences, Rigidity of the Spine, and the [illegible] Joints Generally. By Sir William H. Bennett, [illegible] Consulting Surgeon to St. George's Hospital. Edition 4. Cloth. Pp. 134, with illustrations. Price, $1.75. New York: Longmans, Green & Co., 1909.

Report of the Commissioner of Education for 1908. Vol. II. Cloth. Washington: Government Printing Office, 1909.

Report of the Veterinary Director General and Live Stock Commissioner. J. G. Rutherford, V.S., For the Two Years ending March 31, 1908. Sessional Paper No. 15a, Dept. of Agriculture, Canada. Paper. Pp. 144.

Lehrbuch der Nervenkrankheiten. Herausgegeben von Dr. Hans Curschmann, [illegible] Arzt der inneren Abteilung des St. Rochus-Hospi[illegible] [illegible] Pp. 977, mit 289 in den Text gedruckten [illegible] 24 marks. Berlin: Verlag von Julius Springer, 1909.

Jahresbericht über die Fortschritte der inneren Medizin im In- und Auslande. Redaktion: Dr. Schreiber, in Magdeburg, Dr. Rigler in Leipzig. Bericht über die Jahre 1902 und 1903. 1. Band. Paper. Pp. 776. Leipzig: Verlag von Dr. Werner Klinkhardt, 1909.

La Fiebre Amarilla y el Mosquito Estegomyia: Exposicion Popular de la Doctrina Moderna. Por el Dr. José Manuel Espin y Garriga. Paper. Pp. 31.

Treatment of Leukemia.—B. Thomas, in *Northwest Medicine*, states that in the treatment of this condition fresh air, good diet, rest, physical and mental, are essential. Of drugs, he considers that arsenic has the most influence on the course of the disease, though iron is also of value. At present he believes that the *x*-ray is the best palliative treatment at our command

Medicolegal

Opinion Evidence of Physicians and Osteopaths and Impotence in Injury Cases

The Supreme Court of Wisconsin says, in the personal injury case of Bucher vs. Wisconsin Central Railway Co., that the opinions of medical men may be rejected as an insufficient basis for a finding of fact by a jury where the court is convinced that reasonable certainty is outside of the possibilities of the situation. Therefore, obvious error of opinion, opinion based on insufficient data, or nonsense clothed in words of "learned length," may be disregarded by this court as a basis for supporting a verdict.

With reference to the testimony of certain osteopaths who were put forward as expert witnesses, the court says that much of it was practically meaningless, mere nonsense, and was no doubt prejudicial to the defendant. The testimony of experts is proverbially unreliable at best, even when the experts are learned and competent, because bias is almost unavoidable on account of our mode of selecting experts, and bias requires small basis on which to ground an opinion. But where this unreliability is accentuated by a showing that the expert has little or no data on which to base the opinion, and the subject on which he expresses an opinion is one recognized by the approved learning of the times to be of great doubt and difficulty, or where the alleged expert demonstrates his lack of knowledge by his testimony, such testimony will not be sufficient to support a verdict which to this court seems unjust or excessive.

Again, the court says that it is very easy to exaggerate before a jury the cause, effect, or probable permanency of such a condition as impotence. The same is true with regard to nervous disorders. Both are easy to feign, hard to disprove, exaggerated by auto-suggestion, and it is comparatively easy for an expert to have an opinion tracing either to a particular physical injury, instead of to a disease, a mental condition or a general impairment of health.

If loss of sexual power is to be thrown into the scale as an item for which the plaintiff is entitled to be compensated in a personal injury case, common sense informs us that in practically all cases of severe injury, pain, suffering or sickness there must be and ordinarily is during such period of stress a suspension of the sexual functions. This is also true of the lower animals. The consequence of considering this as an additional or independent item of damages must be that every sick or injured man may assert his sexual impotence as a ground for recovery additional to pain, sickness, or suffering, and thus duplicate damages.

Cases may no doubt occur of direct injury to the generative organs in which some such ground of damages would not be a matter of mere conjecture, and what is here said has no reference to such cases. But if one in consequence of an injury is continually suffering pain and sickness, he is not apt to be concerned about his sexual powers or pleasures. If so, pain must have lost its usual distracting effects, and affliction its usual chastening consequences.

In the instant case, if the plaintiff was sick and disabled to the extent he claimed, he would in all probability be more concerned about his pain and sickness than about his sexual potency when he consulted a physician, and there is a strong element of improbability in the claim that one really seriously ill and suffering pain, consulting a physician for relief, would also bring up the matter of his sexual impotence while in this distressful condition as an item of injury, instead of regarding it as a consequence of his pain and sickness, if he noticed it at all. Damages based on any such ground and the evidence to support such damages will be closely scrutinized by this court and limited within proper bounds, and the verdict of a jury resting on opinion evidence which does not commend itself to the court as reasonable or sound will not be given the weight to which a verdict is entitled where it rests on facts.

It was not proper for a physician to testify to the possible consequences of impotence in these words: "It may go on for years, and might terminate in something more serious."

Abortionists Guilty of Murder in the Second Degree

The Supreme Court of Iowa says, in the case of State vs. Gibbons, that the crime of murder in the second degree necessarily involves an act done with malice aforethought. But that term used in defining the crime is technical rather than descriptive. It does not necessarily require an intent to murder. Malice aforethought may be implied where there is no intent to kill, but an intent to commit a felony from which death results, although that result is unintended. That death resulting from a criminal attempt to commit an abortion constitutes murder in the second degree is in Iowa well settled. An indictment is not objectionable because it does not charge that the attempt to procure a miscarriage by means of drugs or instruments was made with malice aforethought. And a ruling in this case that such an indictment did not charge murder in the second degree and that, as the indictment was not sufficient to sustain a conviction for murder, dying declarations were not admissible, was prejudicial to the prosecution, for the result was not only to relieve the defendant from punishment for the higher crime, but also to make it more difficult by reason of the exclusion of dying declarations to convict for any crime.

State Board Not Required to Recognize Licenses from Other States

The Supreme Court of South Carolina says that the petitioner in the case of Hollis vs. State Board of Medical Examiners asked that the court by its writ of mandamus require the State Board of Medical Examiners to issue to him a license to practice medicine. The application rested on the allegations that the petitioner had stood the examinations required by the boards of medical examiners of the states of Georgia and Virginia, and had received from each of those boards a license to practice as a physician; that he presented these licenses to the defendant board of medical examiners of South Carolina, tendering at the same time the statutory fee of $5, and demanded a license to practice medicine in South Carolina, but the license was refused; that at the time of the demand the board of medical examiners of South Carolina recognized licenses granted by the boards of examiners of the states of Georgia and Virginia under a reciprocal arrangement existing by virtue of section 9 of an act, entitled "An act to regulate the practice of medicine in South Carolina, to provide for a State Board of Medical Examiners, and to define their duties and powers," approved Feb. 27, 1904, which provides: "The board shall be empowered without examination to indorse, on receipt of the license fee of five dollars, the licenses issued by other state boards having an equal standard: Provided, said other state boards accord to the licenses of the South Carolina state board the same courtesy; and said other state board licenses, when indorsed, shall entitle the holder to registry in this state, and to all the rights and privileges thereby granted."

The statute does not require the board of medical examiners of South Carolina to indorse or recognize licenses from other states, but merely empowers them to do so on the conditions mentioned in the statute. The matter was one placed by the statute entirely within the discretion of the board. The case of State vs. Matthews, 81 S. C., 414, was relied on by the petitioner; but that case in its facts was the opposite of this. There the mandamus was issued against the board of pharmaceutical examiners, because the petitioner was a graduate of a reputable college of pharmacy, and the statute there under consideration provides: "No examination shall be required in case the applicant is a regular graduate in pharmacy from any reputable college; but such applicant shall be entitled to a license on furnishing evidence of his graduation satisfactory to the said board and on payment of the fee of five dollars." In that case the discretion to refuse a license to the graduate of a reputable college of pharmacy was expressly denied to the board, while in this case the statute contemplates that the granting or refusing of the license in this state to an applicant holding a license from the board of examiners of another state shall be entirely within the discretion of the board of medical examiners of South Carolina. Therefore the petition for mandamus is denied.

Presumptions as to Impotence

The Court of Appeal, First District, California, says, in the divorce case of Hobbs vs. Hobbs, that it knows of no presumption that impotence is incurable. There is a well-known and valuable rule of olden times, often repeated in the decisions and text-books, that impotence shall be presumed after three years of ineffectual cohabitation, and shall not be presumed before. It is sometimes called the rule of triennial cohabitation. At the end of three years, if the marriage remain unconsummated, impotence was presumed. The plaintiff was required to show a triennial cohabitation, or that the defect or cause was obvious to inspection; and in all cases where the condition of the sexual organs was an essential element in the proofs the court ordered an inspection of the person by medical experts. These medical inspectors were usually three in number, and were sworn to perform their duties. In one of the old books of English Practice the form of the oath was as follows: "You are produced as inspectors in a cause. . . . You respectively swear that you will faithfully, to the best of your skill, inspect the parts and organs of generation of each said A. and B.; make a just and true report in writing to the judge ordinary of this court, whether the said A. is capable of performing the act of generation, and, if incapable, whether such his incapacity can be cured by art or skill; and also whether the said B. is or is not a virgin; whether she hath or hath not any impediment on her part to prevent the consummation of the marriage, and that one of you will deliver such report under your hands and seals closely sealed up to one of the registrars of Her Majesty's Court of Probate." These old rules were derived from the Canon Law, and were invariably enforced in the Ecclesiastical Courts. While in modern times the courts do not adhere to the old rule as to three years' cohabitation in order to raise a presumption of impotence, yet they hold that the contract of marriage is of too solemn a nature and of too much importance to society to be set aside and annulled except on clear proof of such physical condition of one of the parties at the time of the marriage that it would operate as a fraud on the other party to compel them to live together as husband and wife in name only, without the comforts of marriage and with no prospect of children. It is therefore in all cases necessary for the plaintiff to establish the impotence at the time of the marriage and its incurable nature.

Microsphygmia.—This is the name given by G. Variot to a syndrome characterized by a special and constant condition, independent of any cardiac cause, of imperceptible or almost imperceptible pulse in most or all of the arteries in which it is usually readily perceived. There is no anatomic lesion discoverable as a cause in the circulatory system and it appears to be due to permanent spasm of the arteries. Variot finds it associated with mental debility and ichthyosis, usually existing since childhood or congenital. Richet, *fils*, and Saint Giron have pointed out that mental debility or idiocy is much more commonly associated with the symptom than is ichthyosis, and Variot himself has observed one case without that feature. Others have observed the syndrome attending hereditary syphilis, and Vincent (*Bull. Soc. méd. d. Hôp.*, Nov. 20, 1908, p. 588) has put forward a theory of thyroid dystrophy to account for the symptom, based on some observations in adults. A case of microsphygmia apparently of long duration but unattended by mental failure or ichthyosis, and with probable thyroid dystrophy, is reported in the same publication Feb. 12, 1909, p. 263, by Morichau-Beauchant (of Poitiers). While Variot (*Bull. Soc. méd. d. Hôp.*, Dec. 4, 1908) holds that microsphygmia may coexist with myxedema, he doubts the direct relation between the two. It is possible he thinks, that this arterial spasm, which is the most constant and characteristic feature, may have for its cause several different factors, syphilis, myxedema, etc., and that it would be impossible to attribute all the forms of cerebral and vasomotor trouble that seem at times to occupy the first place in the etiology of microsphygmia to any one cause.

Society Proceedings

COMING MEETINGS

American Ophthalmological Assn., New London, Conn., July 14-15.
Idaho State Medical Association, Seattle, Wash., July 19.
Oregon State Medical Association, Seattle, Wash., July 19.
Washington State Medical Association, Seattle, July 20.
Wisconsin State Medical Society, Madison, June 30-July 2.

AMERICAN ACADEMY OF MEDICINE

Thirty-fourth Annual Meeting, Hotel Dennis, Atlantic City, N. J., June 5-7, 1909

The President, DR. HELEN C. PUTNAM, Providence, R. I., in the Chair

The Value of the Nurse in the Public School

DR. THOMAS A. WOODRUFF, Chicago: Although primarily the work of the school nurse is for the purpose of promoting cleanliness and preventing disease, her services are valuable in more ways than can be enumerated in rules and regulations printed for her guidance. The school nurses of Chicago are under the joint supervision of the Chicago Department of Health and the Visiting Nurses' Association. They are paid by the city and each nurse has charge of a certain number of schools. They have proved themselves to be useful and indispensable to the public school system, as well as to the Department of Health of Chicago. A summary of the benefits of their work shows: 1. A decrease in the spread of contagion. 2. They teach the parents, family and children cleanliness and personal hygiene. 3. They instruct the mother in the care of her children and impress on her the benefits to be derived from cleanliness, fresh air and right living. 4. They render more effective the efforts of the medical inspector by visiting the homes of the children and reporting back information of the conditions found there. 5. They frequently find cases of deprivation and disease in the home which would otherwise go undiscovered and the work of the medical inspector would be of little advantage in the school. 6. They make it possible to treat cases of minor ailments in the school.

DISCUSSION

DR. MCBRIDE, Los Angeles: The question of the inspection of school children was first simply one of inspecting the eyes and ears. It now involves the general hygiene of the school children, which means ultimately an attempt to recreate the vigor of the race. I have been much interested in the work of Dr. L. Gulick of New York in his introduction of calisthenic exercises after every recitation.

DR. HELEN C. PUTNAM, Providence, R. I.: The calisthenics carried out by Dr. Gulick are, I believe, corrective to the attitudes of the children assumed while sitting. They are intended to straighten the back, expand the chest, put in action the leg muscles, bring the shoulders together, throw back the head, and during the few minutes in which they are carried out the windows are thrown wide open.

DR. CASEY A. WOOD, Chicago: Of all the work done by the school nurse I have been most impressed by the influence she has on the mothers of the children in their homes. I believe the work is much more effective and permanent than it would be were the work confined to the schools. The work is much more vital and she is really a hygienic missionary, possessing the highest qualifications for the work.

DR. LEARTUS CONNOR, Detroit: The work of the school nurse appeals strongly to me because it is a part of the education by which the children shall be made to live in the conditions in which they have to do their work, enabling them to be of some use in the world. Most children do not "make good," not through any fault of their own, but because of the system of education of the past.

DR. H. TOMLINSON, St. Peter, Minn.: While it is absolutely necessary that the immediate physical welfare of the child should be studied and those conditions which are harmful eliminated, yet the work will be only properly done when certain definite lines of work are laid out in determining the physical capacities of the child; how far any impairment interferes with his capacity to study and to acquire knowledge. If a child physically unfit and primarily limited in mental capacity is placed in the routine of the public school the result will be disastrous. A careful biological analysis of the individual child is absolutely necessary.

DR. HELEN C. PUTNAM: Do the school nurses of Chicago take the rôle of educators in parents' clubs; also are there any complaints from physicians that the medical inspector and school nurse deprive them of their legitimate patients by sending them to specialists and to hospitals?

DR. JOSEPH K. WEAVER, Norristown, Pa.: I feel that the true function of the school nurse is the home hygienist, and that the work of the medical inspector and of the school nurse must necessarily go together, the nurse seconding the work of the inspector by going into the home, teaching the mother the principles of the preparation of food and of cleanliness.

MISS LYDIA A. KIRBY, Director of Special Schools, Philadelphia: I am sorry to say that in Philadelphia we have not a full corps of nurses, but those whom we have are so fully appreciated by the teachers that I feel that the necessary appropriation will be forthcoming. We are organizing in every ward, school and home associations, in which the teachers and parents come together and the mothers are instructed in cooking, home-making, cleanliness and the care of the children. There are sometimes 200 mothers present.

DR. M. P. E. GROSZMANN, Plainfield, N. J.: The claim that the school nurse in fulfilling her important function is taking the legitimate rights of the physician is due to two facts: (1) The physician is not yet considered by parents generally as a hygienic adviser and preventer of disease, but as one who is to be called in when something requires immediate cure; (2) in some families the physician is rather distrusted and is not considered a counselor. There must be, therefore, an absolute reversal of the position of the physician in the home.

DR. T. A. WOODRUFF: In Chicago the claim made by a certain class of practitioners that the school nurse was appropriating work that rightly belonged to them was thoroughly investigated by the Chicago Medical Society and was found in a large sense not true. I do not think that there is now any dissatisfaction among physicians in regard to the work. It should be remembered, however, that the physician has put the school nurse where she is, and has taught her what she knows of hygiene. If the school inspector falls far short of what he should be, it is not so much his fault, as it is due to the fact that he is underpaid. He can not give the time to following the cases into the home. In some cases he won't do it. In other cases the families are afraid of the physician and will hide the children. The nurse, on the other hand, is welcomed and allowed to do whatever is necessary. Unfortunately, the nurses are so poorly paid that it is going to be difficult to secure a sufficient number.

(*To be continued*)

CONNECTICUT STATE MEDICAL SOCIETY

One Hundred and Seventeenth Annual Meeting, held in Hartford, May 26-27, 1909

The President, DR. SELDOM B. OVERLOCK, Pomfret, in the Chair

Officers Elected

The following officers were elected: President, Dr. Samuel D. Gilbert, New Haven; vice-presidents, Drs. Theodore R. Parker, Willimantic, and William J. Tracy, Norwalk; secretary, Dr. Walter R. Steiner, Hartford; treasurer, Dr. Joseph H. Townsend, New Haven; delegates to the American Medical Association, Drs. D. Chester Brown, Danbury, and Everett J. McKnight, Hartford.

New Haven was chosen as the next meeting place.

Bacterial Vaccines in Treatment of Disease

DR. C. J. BARTLETT, of New Haven, first outlined briefly the development of the opsonic method. Bacterial vaccines were contrasted with antitoxins and the general principles underlying vaccine therapy were discussed:

This method of treatment is specific in the strictest sense of the word. In the majority of infections, autogenous vaccines must be used in order to obtain satisfactory results.

Wright insists that the frequent determination of the opsonic index is essential, but in this country many of those who are using vaccines are evidently disregarding the index and have obtained good results. Localized staphylococcus infections are particularly favorable to this form of treatment. Hartwell and Lee emphasize its especial value in the treatment of boils about the face to prevent scarring. It has proved of value in severe cases of Rigg's disease. According to Wright, antiseptics should not be used together with vaccine therapy as they counteract the action of the opsonins. Ross and others report excellent results in cases of erysipelas. Gabritschewsky's prophylactic work against scarlet fever by means of streptococcus vaccines is interesting but requires confirming.

A few cases of streptococcus endocarditis and puerperal sepsis with favorable outcome under vaccine therapy are reported but this result is the exception and not the rule. Autogenous, not stock streptococcus vaccines, should always be used when possible. Of gonorrheal infections, gonorrheal arthritis appears most amenable to vaccine therapy. Aronstam has reported favorably on its use in acute urethritis and Hollister and others in gonorrheal vulvovaginitis. In cystitis and pyelitis, due to the colon bacillus, it has been used with good results. In typhoid Richardson's results and the recent report of Watters are encouraging. Two cases of actinomycosis, successfully treated, have been reported. Pneumococcus endocarditis is not favorably affected by vaccines. A case of favus of twenty-three years' standing, cured by vaccines, has just been reported by Perssons. From theoretical considerations, it seems probable that better results than yet reported may be obtained in general infections if appropriate vaccines can be used early in the disease. Latham's results in administering vaccines by mouth indicate the possibility of simplifying vaccine therapy. For the successful employment of this method of treatment, more accurate diagnoses than in the past must be made. Laboratory experts must be called on more frequently than heretofore.

Venesection and Dermatology

DR. THOMAS M. BULL, Naugatuck, referred to the antiquity of venesection as a remedial measure; he discussed its value and emphasized the necessity of selecting patients for this purpose. He related cases of eczema and psoriasis in which it had been of value, and closed with some theoretical considerations as to its use, and described the technic.

Localizations of Lesions of the Genitourinary Tract

DR. F. H. COOPS, Bridgeport: It is necessary to have a definite and systematic plan of procedure in order to arrive at an accurate diagnosis. The perfection of the older clinical methods and the invention and use of such modern instruments as the urethroscope, the cystoscope, the different urinary segregators and x-ray photographs has made urology one of the most exact of the medical sciences. As complete a history of the case as possible should first be obtained. Next the secretions and excretions of the tract should be thoroughly investigated, mechanically, chemically and microscopically. When we have thus arrived at certain conclusions regarding the nature and location of the trouble we make use of the different instruments and other mechanical devices at hand in order to clinch our diagnosis. The patient and the experienced investigator going over in this way each portion of the tract in turn, noting and properly interpreting all that he hears, feels and sees, will be fully rewarded for the pains that he has taken.

Ocular Manifestations of Systemic Diseases

DR. M. H. GILL emphasized the importance of using silver nitrate in the eyes of the new-born, and urged the making of that process obligatory by statute. He also spoke of the necessity of examining a child's refraction on the first appearance of a "crossed eye." He advised frequent inspection of the eye ground in general constitutional disturbances, and showed the necessity of referring patients to oculists rather than to opticians.

Partial Responsibility of the Insane

DR. FREDERICK T. SIMPSON, Hartford, said in part: Psychiatrists while studying all other aspects of insanity have ignored the question of responsibility. They have included under insanity in the most recent text-books such conditions as neurasthenia, psychasthenia, hysteria, chronic alcoholism, etc. All the psychoses may be mild, moderate or severe in intensity. There are all degrees of departure from the normal type of mental soundness. It is therefore an absurdity for the law to require that a physician declare a man either totally sane and responsible, or totally insane and irresponsible. It must be recognized that there are different degrees of impairment of responsibility as there are different degrees of impairment of any and all of the other powers and capacities of the individual. Many patients belonging to these classes of mildly insane can not be shut up in asylums. Since they are allowed to go at large, they must be held responsible for their conduct. In point of fact, with most insane persons, the knowledge of right and wrong is well preserved and a large proportion of them are, in their outside social relations, well-behaved persons. They can do wrong like other persons, and usually acknowledge it or excuse it in the natural way. Punishment, or discipline of any sort has the same deterrent effect. The physician has too often sought to rescue the accused on trivial disturbances of mental health. If the medical profession frankly acknowledges that the insane are by no means irresponsible, and that the degree of responsibility is a matter to be determined by careful investigation of all the facts, the present irrational distinction made between medical and legal responsibility will be dropped and the interests both of justice and humanity will be furthered.

Hemolysis in the Diagnosis of Malignant Tumor

DR. HAROLD S. ARNOLD, New Haven, reviewed some of the literature on this subject and gave his experience with hemolysis in 53 tests, at the New Haven Hospital:

Of 13 malignant tumors, 12 gave positive hemolyses; 4 benign tumors gave negative tests; of 32 cases of acute and chronic disease, 1 only, a case of lobar pneumonia, gave a positive reaction. It may be concluded, therefore, that the test, while not infallible, is nevertheless a valuable aid in the diagnosis of malignant growths.

The Influence of Thoughts and Emotions in Causation of Disease

DR. SAMUEL D. GILBERT, New Haven, treated this subject from the standpoint of the general practitioner:

Literature abounds in illustration of such influences. Our environment as a nation is largely and chiefly responsible for the prominence of mental conditions as a factor in the etiology of diseases to-day. The way of living now is different from that of thirty years ago. There were then no telephones, electric cars, wireless telegraphy, automobiles, four and a half days transatlantic steamships, etc. Modern inventions with the labor problems, and the ways of doing business, and the conduct of the sports all conspire to make the whirl and rush of our daily life. The thoughts and emotions exercise their influence on and through the stomach, on nutrition and sleep. This begins at birth. The first individual impressions made on the infant are evident by them. Hence the importance of right influences exercised by nurse and parents; right home surroundings and atmosphere at this early period, as a healthy normal child makes a healthy and sane man or woman. Three of the most common emotions are fear, worry and selfishness. Under fear, fear of bacilli is mentioned as a growing emotion among others. Fear is a direct cause of paralysis agitans among other diseases. Selfishness is the bottom of the hysterical state and frequently in the rich is a cause of neurasthenia. There is one kind of influence causing diseases for which we as physicians are responsible, and that is due to our relations with our patients. Dr. Cabot is quoted as making these points: First, the doctor habit; second, the physician as a cause of disease; third, psychical harm from physical diagnosis and treatment. The physician should have the moral courage to tell patients who are not ill that

they should stay away for their own good. The physician who treats every little ailment, particularly local troubles as of the throat or vagina where they are trifling, is in that way making a hypochondriac and so is himself a cause of disease. The doctor should not make too frequent and minute examinations in, for example, chronic cardiac or kidney disturbances, as he is thereby doing psychical harm. We are often blind to the fact that disease is not caused by some hidden germ or material cause, but by something right before our eyes, *i. e.*, the influence of the thoughts and emotions.

The Physician as an Educator in Sanitation

Dr. Frank E. Guild, Windham: Any study of public hygiene is largely a matter of the destruction and prevention of the dissemination of pathogenic bacteria. Our present knowledge of the cause of disease is due to the comparatively recent discoveries of the nature and activities of the bacteria, which was made possible by the discovery and application of the achromatic lense to the microscope. This was of great value as a help in diagnosis and as a means of identifying micro-organisms now known to be the cause of many diseases. The demonstration by Louis Pasteur, that bacteria caused a large number of diseases did away with the numerous and conflicting theories previously held. With this new knowledge, the responsibility to the public of the physician was greatly increased, especially so when we consider that 50 per cent. of all maladies are extrinsic and preventable. The epithelium of the skin and mucous membrane guards the living body from pathogenic bacteria. There are four avenues of entrance for these germs to the living organs: (1) inoculation by wound infection or by bites or stings of infected insects; (2) through the alimentary canal; (3) through the respiratory system; (4) through the genitourinary apparatus. To the physician and sanitarian belong the care and prevention of such infection and their endeavor should be to guard these portals. Before Grassi proclaimed *Anopheles claviger* as the true transmitter of malaria, or before typhoid fever was known to need no period of incubation in the soil, or before Reed, Carroll, Lazear and Agramonte proved the mosquito to be the true carrier of yellow fever, infectious diseases were divided into contagious, miasmatic and miasmato-contagious. We recognize the alertness of the medical profession in its fight with tuberculosis and we expect to see the time when it will be under control. But while fighting this disease, we must with equal zeal guard against all infectious diseases. From August, 1908, to April, 1909, there were in the state of Connecticut 2329 deaths from infectious diseases other than tuberculosis. How many of these deaths and how much of the cost and discomfort of those who did not die but were sick with these diseases might have been prevented, it is impossible to say. Much of this condition was due to ignorance and carelessness. If the state would be more generous with its money in hiring men trained in sanitation to supervise the instruction and care of these matters, this condition would be different. Pure and cheap milk is a necessity. How to get it is a problem to be solved. How to prevent river contamination from urban sewage and suburban contamination of wells and springs, and how safely to quarantine families and how to disinfect rooms in such a manner as to be perfectly safe for future habitation, are other problems to be solved. These problems are capable of solution through educated supervision. Not only health officers but the masses must be taught in the same way as is being done to-day in the effort to exterminate tuberculosis, and this instruction must be furnished by the physician.

Importance of More Careful Surgical Diagnosis and the Aid Afforded by Various Differential Tests

Dr. Harris F. Brownlee, Danbury: One of the greatest evils in surgery to-day is that of faulty diagnosis, which outside of the large surgical centers prevails to an unnecessary degree among both physicians and surgeons. Errors are frequently unavoidable owing to the real difficulties of the case, but often occur from lack of care in taking the history and making the examination. Diagnosis is an art, a science and an intuition, and no department of medicine or surgery is more worthy of cultivation. Illogical deductions may be drawn from accurate facts, but more often logical deductions are drawn from inaccurate facts. However these errors may be arrived at, they lead to lack of confidence on the part of the public and to general discredit.

Differential tests: The blood count is an assistance if interpreted as indicating an inflammatory process and not an established condition. The Cammidge test is apparently positive in pancreatic affections. The demonstration of occult blood and the estimate of hydrochloric acid is helpful in diagnosis of cancer of the digestive tract. The Roentgen ray is positive in demonstrating renal, ureteral or vesical calculi, but negative as to biliary calculi. By ureteral catheterization, the administration of methylene blue, indigocarmine and phloridzin, by cryoscopy and by noting the electrical conductivity after administration of indigocarmine we gain information regarding affections of the urinary tract, and as to the functional activity of each kidney. By noting changes in the blood pressure and by lumbar puncture we gain knowledge of cerebrospinal affections. By paracentesis we determine the character of various effusions. All these tests are helpful and hopeful; we should know their value and be able to interpret their meaning even though uninformed as to their technic, which naturally belongs to the men of the laboratory. They are, however, not a short cut to diagnosis. A careful painstaking history, and a thorough examination constitute the true basis of accurate diagnosis. We can not all be leaders or pioneers, but we can at least be intelligent followers.

Appendicitis in Pregnancy

Dr. Oto G. Ramsay, New Haven: There is change in general opinion as to severity or fatality of this condition. There is no apparent relationship between pregnancy and a primary attack, though it is probable that pregnancy increases liability to a second attack. Pregnancy increases severity or fatality of suppurative cases. Operation is indicated in every case in which there is the least suspicion of suppuration.

Extrauterine Pregnancy

Dr. P. H. Ingalls, Hartford, discussed the diagnosis of ectopic gestation and when to operate:

It is an error to interfere when the patient is pulseless and in a condition of profound shock. By rallying the patient from profound shock, before operating, I find that my results are more satisfactory. These cases are not rare; many of them go on to tubal abortion and the patients recover without attention. The diagnosis is often difficult. When a diagnosis is made, operation should be done before rupture; when rupture has occurred the patient should be allowed to rally and then operated on.

Heredity in Crime

Dr. Carmalt's paper on heredity in crime refers first to the well-known rules observed in breeding of domestic animals and considers that natural selection is observed nearly as strictly as in man:

Many names which have become famous in all departments of learning are instances of this, for example, the marriages of persons of like tastes, while marriages between these people and degenerates are rare. The Edwards family, *i. e.*, the descendants of Jonathan Edwards, may be taken as an illustration. Galtori's investigations show that there is a fairly well-marked hereditary influence by which different professions keep up the lines; there are instances of theological families, legal families, physicians and scientific families. There are authorities for classifying high moral qualities as inheritable. *Per contra* consider "the Jukes," the "tribe of Ishmael," the Owens family as equally marked instances of degenerate families. There are difficulties in getting genealogic records of criminals. There is a definite relation of pauperism to crime. Pauperism, idiocy, imbecility, epilepsy are all inheritable and associated diseases and I argue that crime belongs to them. It is the duty of the state to prevent the propagation of such types, and I advocate the "sterilization of the unfit," both criminals and imbeciles.

Effect of Removing Large Portions of the Small Intestine

DR. J. M. FLINT, New Haven, referred to three investigations, which have already been published on this subject, with results that differ radically, both as to the percentage that may be removed safely and with reference to the effect of the resection on the organism. A reworking of the problem justified the following conclusions:

1. As much as 75 per cent. of the total small intestine may be removed without fatal results. The animals may gradually return to a condition of practically normal weight and metabolism when maintained on a favorable diet under good conditions.

2. The animals suffer from a severe diarrhea, loss of weight, ravenous thirst and appetite from which they gradually recover until conditions may return to those of a normal animal. They remain, however, extremely sensitive to unfavorable conditions of diet and living.

3. Metabolic studies on such animals show that there is a marked increase in the elimination of the nitrogen, fatty and carbohydrate elements of the food. Their elimination may reach 66 per cent. of the diet content. After compensation is established, on a rich easily assimilated diet, digestion goes on as in a normal dog, except for an increase in intestinal putrefaction as indicated by the amount of indican in the urine. An increase in the fatty content of the food may lead to an increased elimination of nitrogen and fats to a point about 25 per cent. above normal. The carbohydrates, on the contrary, are absorbed to a degree considerably above normal after the compensation is established.

4. The compensatory process consists in a hypertrophy of the remaining portion of the small intestine as well as a hyperplasia. There is no regeneration of the villi or crypts. Computation makes it probable that approximately the original area of the intestine is restored by the compensation. There is apparently no adaptation on the part of either the stomach or the colon to take over the function of the small intestine, although in one case only there was a marked dilatation of the stomach. The remaining organs are normal macroscopically and microscopically.

5. There are 30 cases in the literature in which over 200 cm. of the intestine have been resected. The mortality is 20 per cent., which is probably much lower than it should be owing to the greater probability of successful cases finding their way into literature. Human patients behave in general like the animals. They show similar metabolic disturbances. In one case (Schlatter's) there was distinct evidence of a compensatory process. No regeneration or hypertrophy has ever been reported on a human case.

6. Resection of the human intestine is never an operation of choice. The surgical rule has been and will continue to be a resection of the minimum amount which the pathologic conditions allow. From the metabolic studies it would seem wise to give these patients a rich and easily assimilated diet, relatively poor in fats and relatively rich in carbohydrates.

Practical Points in the Administration of Anesthesia

DR. RICHARD F. RAND, New Haven, related some practical points he had found of use in giving anesthetics. After an experience with the drop method in nearly 300 cases, he preferred it to the cone or Bennett inhaler, the two methods he had previously employed. In speaking of the choice of anesthetics he said that in surgery of the brain chloroform was preferred, but that ether was better in nephritis or diabetes. At night ether is less dangerous than chloroform.

The Natural Channels of Absorption Evoking the Chemical Mechanism of Gastric Secretion.—By means of a specially devised rubber balloon, shaped like a washer, Edkins and Tweedy (*Jour. Physiol.*, 1909, xxxviii, 263) found it possible to separate functionally the pyloric from the fundal end of the stomach in experimental animals, and to study the independent secretions of the two parts. Experiments on animals in which all the gastric branches of the vagus nerve were cut, indicate that secretion in the stomach is evoked, partly at least, by certain substances occurring in the course of digestion, which are absorbed by the pyloric mucous membrane and which liberate a hormone, gastrin, that acts as a secretion stimulant for the fundus mucosæ. It is further found that a hormone is produced in the duodenum which stimulates secretion in both fundus and pyloric regions of the stomach. After washing out the stomach with warm normal salt solution, and introducing 2 per cent. meat extract solution under slight pressure into the duodenum in the fasting state, a liberal secretion occurred in the region of the divided stomach. The secretion of the pyloric end was alkaline; that of the fundus showed a maximum acidity of 0.16 per cent. hydrochloric acid. When the fluid substances were confined to the pylorus the fundus responded with a secretion containing both hydrochloric acid and pepsin. Of the different food substances employed, either in the pyloric region or duodenum, the effectiveness was apparently in the following order; meat extracts, dextrose, dextrin, and last, hydrochloric acid. If the food substances were confined to the fundus region there was no evidence of any secretion whatever.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

ARIZONA: Phoenix, July 5-6. Sec., Dr. Anell Martin.
ARKANSAS: Homeopathic, Little Rock, July 13. Sec., Dr. P. C. Williams, Texarkana.
ARKANSAS: Regular, Little Rock, July 13. Sec., Dr. F. T. Murphy, Brinkley.
COLORADO: Denver, July 6. Sec., Dr. S. D. VanMeter, 1723 Tremont Place.
CONNECTICUT: Regular, New Haven, July 13-14. Sec., Dr. Charles A. Tuttle, 196 York St.; Homeopathic, New Haven, July 13. Sec., Dr. Edwin C. M. Hall, 82 Grand Ave.; Eclectic, New Haven, July 13. Sec., Dr. T. S. Hodge, 17 Main St., Torrington.
DISTRICT OF COLUMBIA: Washington, July 13-16. Sec., Dr. George C. Ober, 210 B St., S. E.
INDIANA: 120 State House, Indianapolis, July 13-15. Sec., Dr. W. T. Gott.
KENTUCKY: Louisville, July 6. Sec., Dr. J. N. McCormack, Bowling Green.
MAINE: State House, Augusta, July 13-14. Sec., Dr. Frank W. Searle, 806 Congress St., Portland.
MASSACHUSETTS: State House, Boston, July 13-15. Sec., Dr. Edwin B. Harvey, Room 159, State House.
NEW HAMPSHIRE: Concord, June 29-30. Regent, Mr. H. C. Morrison.
NEW MEXICO: Santa Fe, July 12. Sec., Dr. J. A. Massie.
NORTH DAKOTA: Grand Forks, July 6-8. Sec., Dr. H. M. Wheeler.
OKLAHOMA: Guthrie, July 13. Sec., Dr. Frank P. Davis, Enid.
OREGON: Portland, July 6. Sec., Dr. R. C. Coffey.
RHODE ISLAND: Room 313, State House, Providence, July 1-2. Sec., Dr. Gardner T. Swarts, 315 State House.
SOUTH DAKOTA: Watertown, July 14-15. Sec., Dr. H. E. McNutt, Aberdeen.
UTAH: Salt Lake City, July 5. Sec., Dr. G. F. Harding, 310 Templeton Bldg.
VERMONT: Burlington, July 13-15. Sec., Dr. W. Scott Nay, Underhill.
WASHINGTON: Seattle, July 6-8. Sec., Dr. Kenneth B. Turner, Walker Bldg.
WEST VIRGINIA: Charleston, July 13-15. Sec., Dr. H. A. Barbee, Point Pleasant.
WISCONSIN: Madison, July 13-15. Sec., Dr. J. V. Stevens, Jefferson.

Illinois January Report

Dr. J. A. Egan, secretary of the Illinois State Board of Health, reports the written examination held at Chicago, Jan. 18-20, 1909. The number of subjects examined in was 16; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 45, of whom 21 passed and 23 failed. One candidate took an incomplete examination. The following colleges were represented:

College	Year Grad.	Total No. Ex.
PASSED		
Bennett College of Eclectic Medicine and Surgery	(1908)	2
Chicago College of Medicine and Surgery	(1909)	3
College of Medicine and Surgery, Chicago	(1908)	1
Hahnemann Medical Coll. and Hospital, Chicago	(1908)	1
Jenner Medical College	(1908)	1
College of Phys. and Surgeons, Chicago	(1894)	2
Rush Medical College	(1907)	1
Northwestern University Medical School	(1908)	1
Medical College of Indiana	(1903)	1
	(1908)	1
	(1908)	2
ll. of Phys. and Surgs.	(1908)	1
	(1902)	1
University of Nashville	(1901)	1
McGill University, Quebec	(1908)	1
University of Naples, Italy	(1906)	1
FAILED		
Chicago College of Medicine and Surgery	(1908)	2
Illinois Medical College	(1908)	3
Jenner Medical College	(1908)	4
National Medical University	(1907)	2
College of Physicians and Surgeons, Chicago	(1908)	1
Keokuk Medical College	(1896)	1
Barnes Medical College	(1908)	3
St. Louis College of Physicians and Surgeons	(1908)	3
Cleveland Medical College	(1870)	1
Medical College of the State of South Carolina	(1902)	1
Meharry Medical College	(1907)	1
University of Budapest, Hungary	(1907)	1

Oregon January Report

Dr. R. C. Coffey, secretary of the Oregon State Board of Medical Examiners, reports the written examination held at Portland, Jan. 5-7, 1909. The number of subjects examined in was 16; total number of questions asked, 114; percentage required to pass, 75. The total number of candidates examined was 52, of whom 31 passed, including one non-graduate, and 21 failed, including one non-graduate. The following colleges were represented:

PASSED

College	Year Grad.
Denver and Gross College of Medicine	(1907)
George Washington University	(1908)
Northwestern University Medical School	(1902)
Northwestern University Woman's Medical School	(1895)
Hahnemann Medical College and Hospital, Chicago	(1906)
Rush Medical College	(1891) (1900) (2, 1906)
American Medical Missionary College	(1905)
University of Iowa	(1907)
Kansas Medical College	(1905)
Tulane University of Louisiana	(1907)
University of Missouri	(1893)
St. Louis College of Physicians and Surgeons	(1906)
Barnes Medical College	(1903)
University of Buffalo	(1898)
Miami Medical College	(1908)
University of Oregon	(4, 1908)
Willamette University	(2, 1907) (1908)
Jefferson Medical College	(1886) (1904)
Woman's Medical College of Pennsylvania	(1908)
University of Vermont	(1905)
University of Helsingfors, Finland	(1896)

FAILED

Northwestern University Medical School	(1907) (1908)
Rush Medical College	(1886)
College of Physicians and Surgeons, Chicago	(1885) (1903) (1905)
Chicago College of Medicine and Surgery	(1904)
Kansas Medical College	(1906)
University of Louisville	(1907)
Missouri Medical College	(1890)
St. Louis University	(1908)
St. Louis College of Physicians and Surgeons	(1908)
University of North Carolina	(1906)
University of Oregon	(1908)
Willamette University	(1906) (1907)
Pulte Medical College	(1877)
Jefferson Medical College	(1904)
Western University, London, Ontario	(1896)
University of Turin, Italy	(1899)

New Mexico April Report

Dr. J. A. Massie, secretary of the New Mexico Board of Health and Medical Examiners, reports the written examination held at Santa Fe, April 12, 1909. The number of subjects examined in was 13; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 4, of whom 3 passed and 1 failed. Sixteen candidates were licensed on presentation of satisfactory credentials. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
University of Alabama	(1899)	80.4
Memphis Hospital Medical College	(1902) 78.4; (1906)	78.9

FAILED

Georgia College of Eclectic Medicine and Surgery	(1890)	70.

LICENSED ON CREDENTIALS

College	Year Grad.
Denver and Gross College of Medicine	(1906)
Illinois Medical College	(1903) (1906)
College of Physicians and Surgeons, Chicago	(1905)
Bennett College of Eclectic Medicine and Surgery	(1879)
Hahnemann Medical College and Hospital, Chicago	(1899)
Rush Medical College	(1899)
Louisville Medical College	(1872)
University of Maryland	(1863)
University of Minnesota	(1901)
Marion-Sims Beaumont College of Medicine	(1903)
Starling Medical College	(1897)
Miami Medical College	(1903)
Hahnemann Medical College and Hospital, Philadelphia	(1897)
Jefferson Medical College	(1896)
University of Texas	(1904)

Georgia April and May Reports

Dr. E. R. Anthony, secretary of the Regular Board of Medical Examiners, reports the written examinations held at Atlanta, April 30-May 1, 1909, and at Augusta, May 3-4, 1909. The number of subjects examined in was 10; total number of questions asked, 50; percentage required to pass, 80.

At the examination held at Atlanta, April 30-May 1, the total number of candidates examined was 113, of whom 91 passed and 22 failed. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
University of Alabama	(1908)	80.
George Washington University	(1906)	85.
Atlanta College of Physicians and Surgeons	(1903) 84; (1909) the grade of 80 was reached by six; 81 by one, 82 by two; 83 by one; 84 by two; 85 by three; 86 by one; 87 by seven; 88 by three and 89 and 90 by one each.	
Atlanta School of Medicine	(1909) the grade of 80 was reached by four; 81 and 82 by three each; 83 by six; 84 by eight; 85 and 86 by five each; 87 by three; 88 by two; and 89 and 91 by one each.	
College of Physicians and Surgeons, Chicago	(1907)	83.
University of Louisville	(1908)	80.
Baltimore Medical College	(1906) 80; (1908)	85.
Maryland Medical College	(1904) 81; (1906)	86.
Johns Hopkins Medical School	(1906)	87.
College of Physicians and Surgeons, Baltimore	(1908)	80.
North Carolina Medical College	(1909)	85, 86.
Medical College of the State of South Carolina	(1900)	80.
Memphis Hospital Medical College	(1903)	80.
University of Tennessee	(1905)	84.
Meharry Medical College	(1909) 80, 82, 86, 87,	87.
University of the South	(1906)	82.

FAILED

Atlanta College of Physicians and Surgeons	(1909) 73, 76, 77, 78.
Atlanta School of Medicine	(1909) 74, 75, 76, 77, 78.
North Carolina Medical College	(1907) 76.
Leonard Medical School	(1906) 77; (1908) 74.
Meharry Medical College	(1908) 76, 76, 77; (1909) 67, 77, 77.
Knoxville Medical College	(1905) 78; (1908) 75.
Chattanooga Medical College	(1909) 75.
University of West Tennessee	(1908) 72.

At the examination held at Augusta, May 3-4, 1909, the total number of candidates examined was 24, of whom 21 passed and 3 failed. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
University of Alabama	(1909)	83.
Medical College of Georgia	(1909) 80, 80, 80, 81, 82, 82, 83, 84, 84, 84, 85, 86, 86, 87, 87, 87, 88, 88, 89.	
Chattanooga Medical College	(1902)	85.

FAILED

Medical College of Georgia	(1908) 71; (1909) 73, 74.

Massachusetts May Report

Dr. E. B. Harvey, secretary of the Board of Registration in Medicine, reports the written examination held at Boston, May 11-13, 1909. The number of subjects examined in was 13; total number of questions asked, 70; percentage required to pass, 75. The total number of candidates examined was 32, of whom 19 passed, and 13 failed, including 3 non-graduates. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Howard University	(1907) 75; (1908)	84.
Georgetown University	(1908)	79.7
Baltimore Medical College	(1908)	75, 75.
Johns Hopkins Medical School	(1909)	80.9
Medical School of Maine	(1908)	84.
Tufts College Medical School	(1908)	75.
Harvard Medical School	(1906) 82.6; (1907) 82.5; (1908)	77.1, 79.6
New York Homeopathic Med. Coll. and Hospital	(1881)	75.
Dartmouth Medical School	(1906)	82.3
Woman's Medical Coll. of the N. Y. Infirmary	(1891)	82.5
University of Pennsylvania	(1907)	82.3
University of Vermont	(1905) 75.2; (1908)	76.5
University of Aberdeen, Scotland	(1904)	79.6

FAILED

Baltimore Medical College	(1908) 72.2
College of Physicians and Surgeons, Boston	(1908) 58.2, 60.7, 65.
Dartmouth Medical School	(1899) 67.7
University of the South	(1901) 67.2
University of Vermont	(1903) 70.1
University College of Medicine, Richmond	(1907) 63.5
Laval University, Quebec	(1905) 65.5
University of Naples, Italy	(1900) 71.

Leucocytes in Tuberculosis.—Because the study of the opsonic index gave uncertain results and entailed a cumbersome technic J. F. Hultgen (*Transactions of the Chicago Pathological Society*, Feb. 1, 1909) resorted to the study of the leucocytes, hoping that it might furnish a guide to the administration of tuberculin. He examined the blood in 500 cases. In incipient tuberculosis the blood picture of secondary anemia with comparative lymphocytosis was found. The same condition is found in recovery from any infection. It is occasioned in this instance by the intermittent autoimmunization against the tuberculin that enters the blood from the tuberculous focus. Hultgen proposes, therefore, to use the leucocyte count as a guide in the administration of tuberculin. The leucocytes respond readily and invariably to changes in the amount of antibodies in the circulation, as is shown by the actual and typical postinfectious leucocytic equilibrium found in recovery from any infectious disease; the development of the blood picture under the use of tuberculin; the deviation from this equilibrium when overdoses of the tuberculin are given and the subsequent return to it; by the deviation from this proportion during intercurrent bronchitis or bronchopneumonia occurring in tuberculosis; and, again, by its return toward this characteristic type. It is not good practice to use the local reaction alone as a guide in the administration of tuberculin, for there is no definite relation between the local reaction and the general immunity.

Book Notices

MARRIAGE AND DISEASE. An Abridged Edition of Health and Disease in Relation to Marriage and the Married State. Edited by H. Senator and S. Kaminer, Berlin. Translated from the German by J. Dulberg, M.D., Manchester, Eng. Cloth. Pp. 152. Price, $2.50. New York: Paul B. Hoeber, 1909.

As an abridged edition of the larger work which has received so much commendation, the present volume has many advantages. A rather careful examination fails to reveal any unfavorable criticism to be made on the work. The chapter on sexual hygiene in married life by Professor Fürbringer of Berlin is worth circulation as a separate pamphlet, for it must be confessed that there is hardly any work on this subject for the general public which is comparable to this chapter. The various divisions of the general subject are treated by Berlin physicians who stand high in scientific attainments, and the field is thoroughly covered, from consanguinity in marriage and its effects on the offspring, to professional secrecy and economic considerations.

SCIENTIFIC NUTRITION SIMPLIFIED. By Goodwin Brown, A.M. Cloth. Pp. 200. Price, 75 cts. New York: Frederick A. Stokes Co.

Brown's neat little volume may be called a digest of the most practical facts—as they have appealed to him—along the line of food reform. He gives special attention to the works of Fletcher on thorough mastication of the food, and of Chittenden and Fisher on the more careful selection of food in accordance with its constituents and the needs of the body. Brown makes no claim of originality, but says that he simply is endeavoring to make accessible some of these facts which are so worthy of attention. He has succeeded fairly well, and the book supplies a definite need, regardless of whether or not one wishes to follow Fletcher and others to the full extent that their theories carry them. This book may be safely recommended to patients who are interested or need to become interested along the lines referred to.

THE HUMAN SPECIES. By Ludwig Hopf. Authorized English Edition. Cloth. Pp. 457, with illustrations. Price, $3. New York: Longmans, Green & Co. 1909.

In this work the structure, functions and diseases of the human species are compared with those of animals. It is evident that the book is intended for the general reader interested in the biologic relationships of human beings, and to such it is heartily recommendable, being instructive, easy to read, and trustworthy in most of the essentials. Especially interesting in the discussion of the ancestors of man, of the distribution of mankind, of psychology and special comparative psychology, of emotions and their expression, of social conditions and observances, and of arts and handicrafts. There are mistakes and shortcomings in the section on pathology. We are told that cultures of tubercle bacilli can not be inoculated into guinea-pigs. Nothing is said of the relation of *Treponema pallidum* to syphilis. The proof that yellow fever is communicated by a mosquito is stated inadequately. The style is simple and adapted to the demands of persons of general education.

MEDIZINAL-BERICHTE ÜBER DIE DEUTSCHEN SCHUTZGEBIETE. Volume for 1906/7. Cloth. Pp. 324. Price, 7.50 marks. Volume for 1907/8. Cloth. Pp. 528, with illustrations. Price, 9 marks. Herausgegeben vom Reichs-Kolonialamt. Berlin: Ernst Siegfried Mittler und Sohn.

These two volumes are official reports of the diseases, sanitary conditions and other matters pertaining to health in the German dependencies for the periods indicated. The reports give a good idea of the German activities in these matters, and are of great value and interest to health officers and students of public health questions.

ATLAS AND EPITOME OF OPHTHALMOSCOPY AND OPHTHALMOSCOPIC DIAGNOSIS. By Prof. Dr. O. Haab of Zurich. Second American Edition. Edited by G. [illegible] M. [illegible] D., Professor of Ophthalmology in the [illegible] and Ophthalmic Surgeon to the Univers[illegible] 94, with illustrations. Price, $3. Philadelphia: W. B. Saunders Co., 1909.

ATLAS OF THE EXTERNAL DISEASES OF THE EYE, Including a brief Treatise on the Pathology and Treatment. By Prof. Dr. O. Haab of Zurich. Edition 3. Edited by G. E. de Schweinitz, A.M., M.D., Professor of Ophthalmology in the University of Pennsylvania and Ophthalmic Surgeon to the University Hospital. Cloth. Pp. 244, with illustrations. Price, $3. Philadelphia: W. B. Saunders Co., 1909.

These books of Haab's have been found to be of such practical value that they have been translated into twelve or more languages, one of the latest being Japanese. We all appreciate the value of good illustrations; and these books contain examples of the best colored plates, showing the ocular conditions as seen in life, and also many pathologic illustrations. The text is brief and practical and the description of the external ocular diseases is preceded by a concise, accurate description of the various functional eye tests and methods for the detection of the diseases which are described in full later on. The "Atlas of Ophthalmoscopy" is in its fifth German edition, from which this second American edition is taken. Valuable additions have been made to the illustrations of both works. As Haab well says, a study of these books gives one the atmosphere of a large clinic. They should prove profitable to all physicians, and particularly those in general practice.

DIE ENTSTEHUNG UND VERBREITUNG DER TUBERKULOSE IM WEIBLICHEN GENITALTRACT. Von Dr. Albert Blau, Assistenten der Klinik von Rosthorn in Wien. Paper. Pp. 95. Price, 4 marks. Berlin: S. Karger, 1909.

Blau concludes from the literature, from experimental work, and from clinical observations that primary tuberculosis of the female genital tract is rare and that of the upper genitals practically unknown; and that, while infection of the genitals is possible, it occurs only when there are both favorable conditions of the tract itself (the puerperium, trauma, etc.) and an exceptionally virulent infecting agent. An extension upward of the disease does not occur, according to his observation, either in experimental animals or in the human female. In the cases of tuberculosis of the upper genital organs the infection is received by way of the blood.

BLUTUNGEN UND AUSFLUSS AUS DEM UTERUS: IHRE URSACHEN UND BEHANDLUNG. Von Hofrat Dr. A. Theilhaber. Paper. Pp. 87, with illustrations. Price, 2.50 marks. München: Verlag von Ernst Reinhardt, 1909.

Theilhaber treats first the causes of uterine hemorrhage, giving especial importance to alterations of the muscular layer and the vessels in myomatous bleeding and to the psychic and nervous influences which may excite hemorrhage in the absence of any organic disease. Disease of the endometrium, which has usually been credited with the production of hemorrhage, is in his opinion only rarely the cause of such an occurrence. Discharge from the uterus may be of two kinds, mucous and purulent. After numerous careful investigations he concludes that discharge from the uterus may be occasioned either (a) by a hypersecretion of the uterine mucosa in consequence of venous stasis, chronic metritis, disturbances of circulation, psychic or erotic stimulation, masturbation, chlorosis, etc. (neurasthenia or hysteria particularly may often be a cause of a flow; in such patients the flow occurs after every severe psychic stimulation); or (b) by a genuine endometritis, which in the majority of cases is due to gonorrhea. In the first class the flow is commonly mucous; in the second generally purulent. Only a few pages are devoted to treatment which is along ordinary lines. Cauterization of the interior of the uterus with chlorid of zinc for hemorrhage or with nitrate of silver for obstinate discharge is recommended. Theilhaber does not advise sterilization by steam although he admits that it may be effective in skilful hands. He has found scarification of the vaginal portion very serviceable in some forms of bleeding as well as in obstinate leucorrhea.

THE GENERAL CHARACTER OF THE PROTEINS. By S. B. Schryver, Ph.D., D.Sc., Lecturer on Physiological Chemistry, University College, London. Cloth. Pp. 86. Price, 80 cts. New York: Longmans, Green & Co., 1909.

This is one of a series of monographs through which it is proposed to put before chemists and physiologists the latest knowledge concerning the chemistry of biologic products and its application to special tissues. Each monograph is to be complete in itself and to be written by a worker dealing with his special subject. The present number deals with the general characters of proteins, especially with reference to their value for isolation and identification of the individual members of the class. The descriptions are thorough and complete, so

much so that in some places the book may prove difficult reading for the general practitioner. For the chemist and physiologist, however, it will prove a very valuable collection of data on this subject.

An Experimental Study of Sleep. (From the Physiologic Laboratory of Harvard Medical School and Sidis' Laboratory.) By Boris Sidis, M.A., Ph.D., M.D., Author of Psychopathologic Researches in Mental Dissociation. Paper. Pp. 106. Price, $1. Boston: Richard G. Badger, 1909.

The uncertainty of the subject, an ill-defined feeling that sleep is not altogether a physiologic affair, together with the tendency of man to be interested more in active than in passive states—these facts are assigned by Sidis as the reason for the scant attention that is given to sleep in most textbooks of physiology. The advance of biologic knowledge no longer, however, allows even passive states to be ignored.

Sidis reviews the physiologic, histologic, psychologic and biologic theories of sleep, and discusses the difference between sleep and hypnosis and the peculiar states termed by him "hypnoidal," which lie on the borderland of waking, sleep, and hypnosis. A special characteristic of the hypnoidal states is the difficulty of fixing them for any length of time. They are the bridge that connects the waking state with hypnosis on the one hand and sleep on the other. To enter or pass out of sleep or hypnosis, one must traverse the intermediate, or hypnoidal, state. These subwaking states are characterized by the trait of suggestibility.

In the study of sleep, Sidis asserts, we must devote our attention to the investigation of these transitory, subwaking states. He undertook, therefore, in the physiologic laboratory of the Harvard Medical School, a series of experiments on frogs, guinea-pigs, cats, dogs, infants and adults. His point was to induce sleep and its allied states, subwaking and hypnoidal, keeping as close as possible to the conditions of normal and abnormal suggestibility. To this end, monotony, limitation of voluntary movements, and limitation of the field of consciousness were found to be essential. He records in separate chapters his experiments on the lower animals, which lead him to the conclusion that all these animals are subject to the same condition of sleep states; and that, phylogenetically, the hypnoidal is the primitive "rest state," out of which sleep and hypnosis have become differentiated. Experiments on children and adults confirmed the conclusions arrived at with increasing certainty by the experiments on animals.

In the second part of the work, Sidis discusses theoretically the results of the experiments recorded. He first defines the "threshold" of stimulation as "the minimal intensity below which stimulus remains ineffective;" in other words, the point at which reaction to stimulus first becomes perceptible. He then shows that the threshold rises under stimulation—i. e., that an increasingly greater stimulus is required to evoke a perceptible reaction, in proportion as a series of stimulations is kept up without variation. Finally, the stimuli fall altogether out of consciousness and fail to awaken the psychophysiologic systems which previously responded to them; then, so far as the particular stimulus is concerned, the cell may be regarded as asleep. What is true of the cell holds good also of systems of cells and neurons constituting a multicellular organism. Thus, sleep is produced by monotony.

The limitation of voluntary movements also plays an important part in the induction of sleep states. Throughout the scale of animal life, from the lowest to the highest forms, intelligence is intimately related to the degree of development of the muscular system and to the delicacy of motor adjustments. Experiments prove the same truth of the importance of motor elements in our mental life. It becomes much easier to memorize a series of syllables or numbers if we write them down, even though we do not look at them during the writing. Motor elements form the nucleus of consciousness. Sidis thus describes the difference between sleep and hypnosis: "The process of redistribution of thresholds takes place in the intermediary hypnoidal states. When the redistribution of thresholds in the hypnoidal states brings about a fall of thresholds, due to predisposition to, and further cultivation of, dissociations, the result is hypnosis; when the redistribution in the hypnoidal states brings about a rise of thresholds, the result is sleep."

The experimental evidence is particularly interesting. One point that seems to call for notice is the evidence, in the case of the experiments on puppies, that there is a true personal influence exercised by the operator, though this is in every way inferior to the factors of monotony and limitation of movement and consciousness.

The essay presents occasional lapses of grammar and of logical consecutiveness, and would bear revision in this respect; for these—as well as the discursive style adopted, which leads to much unnecessary repetition—inject some difficulties into the smooth reading of a very interesting study.

Self-Control and How to Secure It. By Dr. Paul Dubois, Professor of Neuropathology in the University of Berne. Cloth. Pp. 337. Authorized Translation by Harry Hutcheson Boyd. Price, $1.50. New York: Funk & Wagnalls Co., 1909.

Prof. Paul Dubois seems to have desired to make his clerical followers, or we might perhaps better say, those who have adapted his teachings to such movements as Emmanuelism, understand more fully his position in regard to fundamental morality by writing this work. It contains a large amount of good moral teaching, but the author never lets us forget his unorthodoxy, and he intrudes his idea of what he calls moral determinism all through the work. This marked intrusion of his agnosticism in this volume appears to us a defect. It does not follow that the book may not be profitable reading. It is well written and full of good counsel and in some parts it is altogether excellent. He is a tolerant agnostic and, to a comparatively harmless extent, one of the kind mentioned by Sir Thomas Browne in his "Religio Medici"—one of those scepties who, while professing to know nothing, think that they know more than all the world besides. The book is meant for the laity, but it will be profitable reading for the physician. The translation is admirably done.

A Manual of Practical X-Ray Work. By David Arthur, M.D., D. P. H., Medical Officer in Charge of X-Ray Department, West London Hospital, and John Muir, M.B., Ch.B., and B.Sc. (Pub. Health.) Cloth. Pp. 244, with illustrations. Price, $2.50. New York: Rebman Co., 1909.

This work is offered as a practical hand-book of x-ray medical work and is written apparently with especial reference to the British public medical services. Its authors are well equipped for the task they have set themselves, write from first-hand knowledge of diagnostic x-ray work and are conservative. The work, therefore, as far as it goes, is good and is to be commended. Two hundred and twenty pages are given to the physics of x-rays, apparatus, and the diagnostic application of x-rays, and this part of the work is fairly complete. It is notable for clearness, sanity and conservatism. One chapter of seventeen pages is devoted to therapeutics. It is as sketchy as possible; contains little more than an enumeration of the affections that may be treated with x-rays, and is worthless. This chapter ought to have been omitted from the book. Then the work would have pretended to be no more than it is—a practical manual of x-ray diagnosis—and as such would have been open to no serious criticism.

Catholic Churchmen in Science. Second Series. By James J. Walsh, M.D., Ph.D., LL.D., Dean and Professor of the History of Medicine at Fordham University School of Medicine. Cloth. Pp. 228, with illustrations. Price, $1 net. Philadelphia: American Ecclesiastical Review, The Dolphin Press, 1909.

We are glad to see a second volume on the great contributors to science who were Catholic clergymen, following the one we noted some time ago. The historical side of medicine needs to receive more attention, and Dr. Walsh's contribution will help to make more clear the work done by some of the great founders in science. The books of this series have as an underlying motive an argument for the compatibility of science and faith. From the lives outlined in these chapters, Walsh remarks, it can readily be seen that most men may be devout believers in all the mysteries of religion, without having curtailed in any wise the powers for the searching investigations and inquiries that are so important for progress in science. The divisions of this second volume are: "Albertus Magnus, Philosopher, Theologian, Scientist;" "John XXI, Philosopher, Physician, Pope;" "Guy de Chauliac, Father of Modern Surgery;" Regiomontanus, Astronomer and Bishop;" "Clerical Pioneers in Electricity;" "The Jesuit Astronomers."

GENERAL INDEX

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SOCIETIES

Abbreviations

Acad —Academy
Am —American
A —Association
Conf —Conference
Cong —Congress
Coun —Council
Hosp —Hospital
Internat —International
M —Medical, Medicine
Pharm —Pharmaceutical
S —Society
Surg —Surgical, Surgery, Surgeons

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CURRENT MEDICAL LITERATURE

INDEX OF SUBJECTS

Explanation: The *reading matter which appeared in* THE JOURNAL *is not indexed here*, except the original articles and the abstracts of *original articles*. This index refers to the titles and the subjects of original articles published in the leading medical journals of the world, including THE JOURNAL, during the past six months. The titles of the articles and the names of the journals in which they appeared were listed weekly in the Current Medical Literature Department, and it is to them that references are here made. The figure in parenthesis refers to the paragraph; the number following, to the page in THE JOURNAL. For instance, "Abdominal Surgery in the Aged, (48) 923," refers to page 923 of THE JOURNAL, on which is found, in paragraph numbered 48, the title of the paper and the name of the author, viz., "Abdominal Surgery in the Aged. E. W. Hedges." This title is listed under the journal in which the article appeared, the *American Journal of Obstetrics and Diseases of Women and Children*, February, 1909. When "ab" follows a page number it indicates that the article was abstracted in THE JOURNAL; for instance, "Aberrations, Psychic, With Diseased Prostate, (45) 167—ab." On page 167, paragraph 45, will be found an abstract of this article, which appeared in the *Illinois Medical Journal*, November, 1908. Titles of articles which appeared originally in THE JOURNAL are indicated in the index by an asterisk (*) before the page number; for instance, "Abdominal Tuberculosis, Acute Forms of, *291," refers to page 291 of THE JOURNAL, on which is found the complete original article. The index to authors of all articles, both original and those listed under Current Medical Literature, appears separately on pages 2221 to 2236 of this index.

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